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MARIAVILLE MAINE

COMPREHENSIVE PLAN 2005

This is a draft document pending adoption at town meeting

MARIAVILLE COMPREHENSIVE PLAN, 2005

Prepared by the Mariaville Comprehensive Planning Committee:

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**With technical assistance from the
Hancock County Planning Commission**

INTRODUCTION

The Mariaville comprehensive plan update is an advisory document. It reflects the desired future of the town. Overall, it identifies current issues and opportunities that the town faces and discusses what is expected to happen within the next five to ten years. It is an update of the 1991 plan and replaces that document.

The plan consists of two major parts. The *Inventory and Analysis* discusses recent trends in town and projects what may happen in the future. While it discusses some options for the town to consider, **these are not recommendations**. Rather, this section is a reference document. Since any town is changing constantly, some of the data in this plan may become out of date. The data cited in this plan reflect conditions in Mariaville as of June 2004.

The second part is the *Goals, Policies, Implementation Strategies and Future Land Use Plan*. This section sets specific recommendations for the future of the town. The plan, however, is not valid until it is adopted at town meeting. While the plan is the legal basis of any changes to land use ordinances, all such changes must be voted upon at a town meeting separate from the comprehensive plan vote. Public hearings are required before any vote.

The plan is intended to guide the select board, planning board and other town committees in their decisions and provide continuity in town policy. It can also be used to help Mariaville seek funding from various state and federal grant programs. Residents are reminded that planning is an on-going process. This plan should be reviewed annually to see if its assumptions are still valid. A more thorough review may be needed in five years.

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TABLES AND MAPS

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Maps (following page 88): (large-scale, color maps are available for inspection at the town office, and on the HCPC website at <http://hpcme.org/landuse/mariaville/mariavilleplan.htm>)

- Map 1 Property Line Base Map with Topography
- Map 2 Land Use and Ownership Map
- Map 3 Water and Natural Resources Map
- Map 4 Cultural Resources Map
- Map 5 Future Land Use Map
- Map 6 Soils Map with Table of Acreage for Types
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SECTION ONE

INVENTORY
and
ANALYSIS

A. POPULATION

1. Purpose

Population is one of the most basic components of a comprehensive plan. In order to understand Mariaville's current and future needs, it is important to review population trends. Mariaville faces particular challenges due to its very high growth rate and future growth potential. This section aims to accomplish the following:

- a. Review population trends since 1990; and
- b. Present alternative future population scenarios.

2. Key Findings and Issues

Mariaville had a 53 percent increase in its year-round population between 1990 and 2000. The town shares the fastest rate of growth in Hancock County with the adjoining town of Otis. During the same period, the school age population increased by 130 percent. In 2000 Mariaville had the youngest median age of any town in Hancock County except for those that hosted an institution such as a school or military base.

3. Highlights of the 1991 Plan

The plan mentioned that the town was facing a rapid increase in its year-round population and that its population probably doubled in the summer months. The town had a younger population than the county as a whole and was facing an increase in its school enrollment. The plan projected a year-round population of 351 by the year 2000.

4. Trends Since 1990

The population projections for the year 2000 in the 1991 plan underestimated the actual growth rate in Mariaville (see Table A.1). Rather than the 351 projected population, the actual population was 414. The town had a ten-year growth rate of 53 percent. This rate is well above the 10 percent growth rate for Hancock County as a whole. In fact, Mariaville tied with the town of Otis as the fastest growing town in Hancock County.

Table A.1 Historical Population Trends, Mariaville 1850-2000		
Year	Population	Ten Year Percent Change
1850	374	
1860	458	22.5%
1870	369	-19.4%
1880	382	3.5%
1890	271	-29.1%
1900	218	-19.6%
1910	171	-21.6%
1920	131	-23.4%
1930	155	18.3%
1940	132	-14.8%
1950	153	15.9%
1960	144	-5.9%
1970	108	-25.0%
1980	168	55.6%
1990	270	60.7%
2000	414	53.3%
SOURCE: U.S. Census		

As seen in Table A.2, the population of all age groups increased except those under five years old. There was a 130 percent increase in those aged 5 to 17, which comprises the majority of the school-aged population. The next largest increase (120 percent) was in those between 45 and 64 years. Overall, the median age in town increased from 28.5 in 1990 to 34.6 in 2000. The median age is still below the county median. Hancock County's median age increased from 35.8 in 1990 to 40.7 in 2000. The only towns in Hancock County with a younger median age than Mariaville in 2000 were Castine and Winter Harbor, which both then hosted an institution comprised primarily of younger people.

Table A.2 Change in Age Breakdown, Year-round Population Mariaville: 1990-2002						
Age Group	1990 Number	1990 Percent	2002 Number	2002 Percent	Change 90-02	Percent Change 90-02
0-4	37	14%	24	6%	-35.1%	-13
5-17	49	18%	113	27%	130.6%	64
18-44	111	41%	165	39%	48.6%	54
45-64	46	17%	101	24%	119.6%	55
65 & over	27	10%	21	5%	-22.2%	-6
Total	270	100%	424	100%	57.0%	154
SOURCE: U.S. Census (1990) and State Planning Office (2002)						

The average number of persons per household in Mariaville was 2.78 in both 1990 and 2000. During this same period, household sizes in Hancock County decreased from 2.48 to 2.31. This is another indicator of the relatively young population in Mariaville, younger households tend to have more children thereby increasing the household size. Household sizes are important in determining how many homes will be needed for a given level of population.

There have been changes in other population statistics as well. In 1990 the town had a median household income of \$24,500, which was 97 percent of the county medium income of \$25,247. By 2000, Mariaville's median income had increased to \$31,250, which was about 88 percent of the county income of \$35,811. Incomes have thus not kept pace with the county median.

A similar trend can be seen in poverty rates. The 1990 poverty rate in Mariaville was 5.2 percent compared to 10.0 percent for Hancock County. By 2000, the poverty rate had increased to 12.5 percent compared to 7.1 percent for the county. Poverty is a worsening problem in Mariaville.

There has been a change in educational attainment data. In 1990, 89.1 percent of Mariaville residents aged 25 and older had a high school education and 10.9 percent had a bachelor's degree. By 2000, 85.2 percent had a high school degree and 27.2 percent had a bachelor's degree. By comparison, Hancock County in 2000 had an 87.8 percent high school education rate and a 27.1 percent bachelors degree rate. While the town is fairly close to the state statistics it appears that it is attracting both more residents who have not completed high school and more who have completed a four-year college.

5. Projected Population

There is no reliable way to project population for a small town such as Mariaville. Some general statistical models can be used, however. The State Planning Office has developed year-round population projections for all towns in the state through 2015. The figures for Hancock County and Mariaville are shown on Table A.3. As seen, Hancock County as a whole has considerable growth potential. This is consistent with recent trends of a high in-migration rate. The population data for Mariaville show a 55 percent increase between 2000 and 2015. As mentioned above, the population projections in the last plan underestimated the growth rate and it is quite possible this will happen again.

Table A.3			
Projected Population through 2015¹			
Unit of Government	2005	2010	2015
Mariaville	517	589	641
Hancock County	54,371	56,635	58,741
¹ NOTE: refer to text for discussion of limitations of data			
SOURCE: State Planning Office web site			

While there is always some guesswork in population projections, there are a number of likely trends that Mariaville will face over the next ten years:

- a. its population will remain relatively young, which will likely make further demands on the schools;
- b. more second homes may be converted to year-round occupancy, so that not all population growth will necessarily be related to new home construction; and
- c. the high price of land and housing in coastal towns in Hancock County will mean that more people with modest incomes will seek to live in inland towns such as Mariaville.

B. ECONOMY

1. Purpose

An understanding of the economy is important in planning for the future of a town. This section aims to accomplish the following:

- a. Summarize economic trends since the early 1990s; and
- b. Identify current economic issues.

2. Key Findings and Issues

Most Mariaville residents who work commute outside of town. The labor force increased in size by 76 percent between 1990 and 2000 compared to a 19 percent rate of increase for Hancock County. The self-employment rate in Mariaville increased from 10 percent in 1990 to 17 percent in 2000. Self-employment is an important part of the local economy.

3. Highlights of the 1991 Plan

The plan mentioned that the town's labor force was growing at a faster rate than Hancock County's as a whole. The town had a clear identity as a bedroom community for the Bangor and Ellsworth-MDI areas. Apart from a few home-based businesses, a few mills and logging operations, most people in town commuted to jobs elsewhere.

4. Trends Since 1990

Table B.1 compares employment by classification between Mariaville and Hancock County for 1990 and 2000. Overall, the labor force increased from 102 persons to 180 persons, a rate of 76 percent compared to a 19 percent rate for the county as a whole. This is also a faster rate of increase than the 63 percent rate reported in the 1991 plan for the 1980 to 1989 period. These data indicate that the town is attracting many working households.

There are no significant differences between the employment classification breakdown of the Mariaville labor force and that of Hancock County. In both cases, over two-thirds of the labor force in 2000 was employed as private wage and salary workers. Some more noticeable changes can be seen in comparing 1990 and 2000 data. The proportion of those who were self-employed increased from about 10 percent in 1990 to nearly 17 percent in 2000. There was also a decrease in the proportion of persons employed as private wage and salary workers.

Table B.1				
Class of Workers, Employed Persons 16 years and over, 2000				
	Mariaville		Hancock County	
	Number	Percent	Number	Percent
Private Wage/Salary	122	67.8%	17,470	69.8%
Fed/State/Local Gov't	28	15.6%	3,511	14.0%
Self-employed	30	16.7%	3,975	15.9%
Unpaid Family Member	0	0.0%	78	0.3%
Total	180	100.0%	25,034	100.0%
SOURCE: U.S. Census, 2000, Table DP-3				
Class of Workers, Employed Persons 16 years and over, 1990				
	Mariaville		Hancock County	
	Number	Percent	Number	Percent
Private Wage/Salary	76	74.5%	14,604	58.3%
Fed/State/Local Gov't	16	15.7%	2,998	12.0%
Self-employed	10	9.8%	3,325	13.3%
Unpaid Family Member	0	0.0%	73	0.3%
Total	102	100.0%	21,000	83.9%
SOURCE: U.S. Census, CPH-L-83, Table 2				

Table B.2 compares employment by industry sector for Mariaville and Hancock County. The single largest category is education (about 22 percent) followed closely by construction (21 percent). While the proportion of those employed in education is similar to that of Hancock County as a whole, the percentage of persons employed in construction in Mariaville is nearly double that of the county. The high rates of commercial and residential construction throughout Hancock County are important sources of jobs for Mariaville residents.

Table B.2**Mariaville & Hancock County: Employment by Industry Sector, 2000**

Category	Mariaville		Hancock County	
	Numbers	Percent	Numbers	Percent
Agriculture, Forestry, & Fisheries	5	2.8%	1,315	5.3%
Construction	37	20.6%	2,524	10.1%
Manufacturing	15	8.3%	2,369	9.5%
Wholesale Trade	8	4.4%	575	2.3%
Retail Trade	18	10.0%	3,057	12.2%
Transportation, Warehousing and Utilities	9	5.0%	883	3.5%
Information	3	1.7%	644	2.6%
Finance, Insurance & Real Estate	13	7.2%	1,191	4.8%
Professional, scientific, management, administrative and waste management services	6	3.3%	2,005	8.0%
Educational, health and social services	39	21.7%	5,544	22.1%
Arts, entertainment, recreation, accommodation and food services	13	7.2%	2,252	9.0%
Other services (except public administration)	8	4.4%	1,672	6.7%
Public Administration	6	3.3%	1,003	4.0%
Total	180	100.0%	25,034	100.0%
Source: 2000 U.S. Census: Table DP.3				

While there is substantial commuting by Mariaville residents, the mean travel time actually decreased from 36.6 minutes in 1990 to 34.6 minutes in 2000. The 2000 travel time, however, was well above the 22.4 minutes for Hancock County as a whole. Travel times are likely to increase as more people move to Mariaville and commute to jobs on the coast and in the Bangor area. According to 2000 Census data, only twelve residents worked in town compared to 61 in Ellsworth, 28 in Bar Harbor and 20 in Penobscot County.

Unemployment rates are shown in Table B.3 for Mariaville and Hancock County. The town has had, in recent years, unemployment rates well below the county average. Unemployment does not presently appear to be a problem in Mariaville.

Table B.3				
Average Annual Unemployment Rate, 1999-2002				
Unit of Government	1999	2000	2001	2002
Mariaville	2.8	3.9	2.7	2.7
Hancock County	5.3	4.4	4.5	4.4
SOURCE: Maine Department of Labor <u>Maine Civilian Labor Force Estimates</u>				

5. Current Economic Issues

Mariaville is likely to remain a bedroom community. Given the rate of self-employment to the town, it is important that any town land use regulations allow home-based occupations to continue. The town may also want to take measures to protect its farm and forest lands since these are also sources of income for residents and land owners.

C. HOUSING

1. Purpose

It is important for a comprehensive plan to have an analysis of the housing market and local and regional housing needs. This section aims to:

1. review housing trends since 1990;
2. discuss housing affordability;
3. Identify major housing issues; and
4. Project future housing construction trends.

2. Key Findings and Issues

The number of year-round homes in Mariaville increased by 65 percent between 1990 and 2000, which is faster than the 53 percent rate of increase for year-round population. About 98 percent of homes are single family houses or mobile homes, there are very few duplexes or multifamily units.

3. Summary of the 1991 Plan

The housing stock was primarily composed of single-family homes. Housing prices were significantly less than in much of the county while incomes were only slightly below the county median. About 50 percent of the units built between 1980 and 1990 were seasonal.

4. Trends Since 1990

There was a nearly 35 percent increase in the total number of dwelling units (year-round and seasonal) in Mariaville between 1990 and 2000 (see Table C.1). As of 2000, there were 236 dwelling units in Mariaville reported by the U.S. Census in Mariaville. There was a nearly 65 percent increase in the number of year-round homes from 102 units in 1990 to 168 in 2000. This rate is slightly faster than the 53 percent rate of year-round population increase. Homes are being built at a faster rate than the population growth. This is important to bear in mind in assessing how many homes will be built in the future. The number of seasonal homes increased by 12 percent between 1990 and 2000.

Table C.1				
Change in Housing Units, Mariaville, 1990-2000				
Type	1990	2000	Change	Percent Change
Year-round	102	168	66	64.7%
Seasonal	134	150	16	11.9%
Total	236	318	82	34.7%
SOURCE: U.S. Census				

Table C.2 shows the breakdown among various housing types. There was a nearly 79 percent increase in the number of single family homes. While the data show a 69 percent decrease in the number of mobile homes, this may be due to an error in Census reporting. There were only four duplex and four multifamily units. The town remains a community primarily composed of single-family homes.

Table C.2					
Change in Housing Types, Mariaville: 1990 – 2000					
	1990		2000		
Type	Number	Percent	Number	Percent	Percent Change
Single family	152	64.4%	272	87.2%	78.9%
Duplex/Multi-family	0	0.0%	8	2.6%	na
Mobile Homes	84	35.6%	26	8.3%	-69.0%*
Boat/RV/Van	0	0.0%	6	1.9%	na
Total	236	100.0%	312	100.0%	32.2%
SOURCE: U.S. Census *NOTE: See text for discussion of discrepancy.					

The breakdown between rental and owner occupied year-round housing is shown in Table C.3. As of 2000 about 85 percent of year-round homes were owner-occupied and 15 percent were renter occupied. This is a somewhat lower percentage of rental units than in Hancock County as a whole. Most year-round rental units are concentrated in the larger, service center communities. The number of rental units in Mariaville, however, did increase at a faster rate between 1990 and 2000 than the rate for Hancock County (40 percent compared to 16 percent).

Table C.3 Estimated Tenure of Occupied Year-round Housing (does not include seasonal and vacant units) 1990 & 2000 Mariaville & Hancock County						
		1990		2000		1990-2000
		Number	Percent of Total	Number	Percent of Total	Percent Change
T O W N		13	13.4%	22	14.8%	40.9%
	Renter-Occupied					
	Owner-Occupied	84	86.6%	127	85.2%	33.9%
	Total Occupied Units	97	100.0%	149	100.0%	34.9%
C O U N T Y	Renter-Occupied	4,466	24.3%	5,414	24.3%	16.0%
	Owner-Occupied	13,876	75.7%	16,550	75.7%	16.2%
	Total Occupied Units	18,342	100.0%	21,864	100.0%	16.1%
Source: U.S. Census 1990 CPH-1-21, Tables 10+11, 2000, initial print-outs, specified units only, does not include all units.						

The breakdown of contract rents is shown in Table C.4. As of 2000, the median monthly rent in Mariaville was \$425, which was only 83 percent of the \$514 median for Hancock County. Rents have been increasing throughout Hancock County. The average 2002 rent in Hancock County for a two-bedroom apartment (including utilities) was \$686 compared to \$559 in 2001. Comparable data are not available for Mariaville.

Table C.4 Contract Rent of Renter-Occupied Units Mariaville and Hancock County: 2000				
	Mariaville		Hancock County	
Monthly Rent	Number	Percent	Number	Percent
Less than \$200	0	0.0%	412	8.2%
\$200 to \$299	0	0.0%	320	6.4%
\$300 to \$499	9	56.3%	1286	25.7%
\$500 to \$749	5	31.3%	1753	35.1%
\$750 to \$999	0	0.0%	447	8.9%
\$1,000 to \$1,499	0	0.0%	101	2.0%
\$1,500 or more	0	0.0%	3	0.1%
No cash rent	2	12.5%	676	13.5%
Total	16	100.0%	4,998	100.0%
Median Rent	\$425	-----	\$514	-----
Source: U.S. Census 2000, DPH-4				

Table C.5 compares the value of owner-occupied homes between Mariaville and Hancock County. The median value in Mariaville was \$86,700 in 2000 compared to \$108,600 for Hancock County. Values are thus about 80 percent of the county-median. This is another indicator of the relatively moderate housing prices in Mariaville when compared to Hancock County. Housing prices are discussed further in the section on affordable housing.

Table C.5				
Value of Specified Owner-Occupied Housing Units, 2000				
	Mariaville		Hancock County	
Value	Number	Percent	Number	Percent
Less than \$50,000	9	14.5%	685	6.4%
\$50,000 to \$99,999	40	64.5%	4,118	38.2%
\$100,000 to \$149,999	8	12.9%	2,785	25.8%
\$150,000 to \$199,999	2	3.2%	1,383	12.8%
\$200,000 to \$299,999	0	0.0%	1,030	9.6%
\$300,000 to \$499,999	3	4.8%	510	4.7%
\$500,000 to \$999,999	0	0.0%	190	1.8%
\$1,000,000 or more	0	0.0%	78	0.7%
Total	62	100.0%	10,779	100.0%
Median Value	\$86,700	--	\$108,600	--
Source: 2000 Census, Table DP-4				

5. Affordable Housing

Under the state's comprehensive planning process, towns must assess their affordable housing needs. This involves comparing housing prices to household incomes and determining if they are sufficient opportunities for home purchase and rentals. The Maine State Housing Authority (MSHA) has data on housing prices.

MSHA uses an affordable housing index to compare median household incomes to median sales prices. An index of 1.00 or more indicates that incomes are sufficient to purchase the median-priced home. As of 2002, MSHA showed Mariaville having an index of 1.24 compared to 0.81 for the greater Ellsworth-Mount Desert Island area housing market, which includes Mariaville.

Prices in Mariaville are far more affordable than in much of Hancock County. According to MSHA data, the median sales price in 2002 for a home in Mariaville was \$93,500 and the median household income was \$43,865. This contrasts with a median sales price for the entire housing market of \$134,500 and a median household income of \$37,086. MSHA data indicate that a household with the median income can afford a house costing \$116,378, which is well above the median sales price in town.

While these prices are relatively low by Hancock County standards, they do mean that home purchase opportunities are limited for households below the median income. According to 2005 MSHA data there were 53 households at or below 80 percent of median income in Mariaville. Of these, 41 were already homeowners and the balance were renters. Of these renters, seven were potential homebuyers. A review of home construction trends show that there were 65 new dwellings added to the housing stock in Mariaville between 2000-2001 and 2004-2005.

These data indicate that there is an existing home purchase gap of seven homes that may have been addressed by new construction. The town's home purchase opportunity shortfall is far less than that faced by many towns in Hancock County. There may be some problems with housing conditions. The 1991 plan noted that there were some cases of substandard housing, but more recent data are not available.

There are limited data on rental affordability in Mariaville. Due the relatively small number of rental apartment units, it is difficult to take a representative sample of rents. A rental unit is considered affordable if it costs no more than 30 percent of a household's income. County-wide in 2002, MSHA data indicate that only 52 percent of renter households could afford the average rent.

According to data from MSHA, there were eight households in town in 2002 whose incomes qualified them for "Section 8" housing renter assistance. The term Section 8 refers to households entitled to rental assistance from the federal government due to being low income. As of 2002 there were no units in town that met this need. The MSHA data indicate that there are seven rental households with incomes at or below 30 percent of the median income and eight at or below 50 percent or median. These are the households that are likely to be in the most need.

Low income households thus have limited opportunities in Mariaville. As noted in the 1991 plan, however, it would be difficult to build any form of subsidized housing in Mariaville such as large-scale multi-family housing due to the lack of public water and sewer and the distance from other public services. Mariaville's housing needs would be met more effectively through small scale endeavors such as single family home subdivisions and mobile home parks.

6. Major Housing Issues

Mariaville faces different housing needs from much of Hancock County. Its housing prices are well below the county median. It does not face the immediate affordable housing

crunch faced by many coastal communities. Rather, it has attracted a disproportionate share of the county's population growth due in large part to its relatively low housing prices.

Another housing issue is poor housing conditions in some of the housing stock. The town may want to take steps to upgrade its housing stock such as seeking state grant funds. It may also want to assure that building permit procedures are adequate to assure that new homes meet minimum quality standards.

7. Dwelling Unit Projections

It is possible to estimate the number of year-round homes that will be built by dividing the projected population by the projected household size. The *Population* chapter estimated the year-round population of Mariaville to be 641 by 2015. As noted above, year-round home construction has occurred at a somewhat faster rate than population growth. To account for this trend, it will be assumed that the average household size will decrease slightly. Under these projections, the town would have at least 239 new year-round occupied homes by 2015, an increase of 57 percent from 2000. Since previous plans have underestimated the rate of new home construction, these projections should be considered conservative.

While there is no reliable way to estimate the number of second homes that will be built, it is likely that they will continue to be built at rates comparable to recent years. Given the 1990-2000 average of just under two additional second homes a year, there would be 30 additional second homes in town by the year 2015. One factor that may reduce the number of second homes is the conversion of more of these homes into year-round units as their owners decide to retire to Mariaville.

Table C.6		
Projected Year-Round Occupied Dwelling Units, Mariaville		
	2000*	2015
Projected Population Residing in Households	424	641
Projected Household Size	2.78	2.68
Projected Occupied Dwelling Units	152	239
*Note: 2000 figures are actual numbers from the U.S. Census.		
Source: Analysis by the Hancock County Planning Commission		

D. TRANSPORTATION

1. Purpose

A town's transportation system is critical in determining how it will grow. Development generally locates along roads. Poorly planned development in turn may create traffic problems that require road improvements. This section aims to accomplish the following:

- a. Present an overview of Mariaville's transportation systems;
- b. Discuss present transportation needs; and
- c. Discuss likely future needs.

2. Key Findings and Issues

As a small, rural community, Mariaville does not face any serious traffic issues. Over time, continued curb cuts along existing roads may result in slowing the flow of traffic. The town should expect further increases in traffic based on its projected population.

3. Highlights of the 1991 Plan

The plan reported that traffic on most roads was well below their design capacity. There were few congestion or safety problems. Conditions on privately owned roads were frequently poor, but these were not the town's responsibility to maintain. There were some concerns about excessive speeding.

4. An Overview of Mariaville's Transportation Systems

Mariaville has approximately 18.06 miles of public roads. These include 14.18 miles of state highway and 3.88 miles of town ways. The state highways include approximately 11.10 miles of Route 181 and 3.08 miles of Route 179. As a rural community, it is dependent primarily on private automobiles for transportation. There is some limited social service transportation provided by the Washington Hancock Community Agency.

While no detailed traffic count trend data are presently available from the Maine Department of Transportation, there are anecdotal reports of increased traffic in town. This is a natural result of recent population growth and commuting by residents to jobs out of town.

5. Present Transportation Needs

One transportation issue is the increased number of curb cuts along Route 181 and other public roads. As more vehicles turn on and off the road, traffic speed is slowed. The town may want to enact some road access management standards. Another transportation issue is increased development in remote parts of town. This means that emergency vehicles face longer travel times.

The road system in Mariaville and the town's geography adds to the cost of providing municipal services. For example, the only way to reach East Mariaville from other parts of town is to travel either through Ellsworth or Amherst. The school bus has between a 20 and 22-mile trip from East Mariaville to the Beech Hill School. The Peninsula Drive area is accessible only through Ellsworth and the Hopkins Pond area is accessible only through Amherst. While school buses do not travel on private roads, emergency vehicles do and long trips on poorly maintained roads add to the cost of fire protection.

The town faces several transportation needs. One is hazardous intersections. There is poor visibility at the Pyles Road and Route 181 and the Dority Road and Route 181. Another issue is speeding and the dangers posed by large logging and gravel trucks. The major local road deficiency is the poor condition of the Tannery Brook Bridge on the Dority Road. It is too narrow to allow the passing of vehicles, has an old stone support system and wooden decking. While no specific data are available on its weight limit, gravel trucks and other heavy vehicles avoid using it.

The comprehensive plan committee has also expressed concern about the poor condition of state highways in town, particularly Route 181. This road is in need of reconstruction. The one-mile segment from the Pyles Road intersection north is in especially poor condition.

There are presently no pedestrian and bicycle facilities in town. Residents do not have safe places in town to walk or ride their bicycles. The narrow shoulders on the edge of the state highways offer little space for walkers. There are presently no off-road pedestrian trails in town.

Given the amount of commuting in town, the town is affected by regional transportation trends. One specific traffic bottleneck is the Route 179/180 and Route 1-A intersection. The long waits at this intersection increase commuting times. There is also poor visibility at the Route 180-181 intersection in Otis. A more general issue is the congestion in Ellsworth.

6. Future Transportation Needs

As indicated in the Population section, Mariaville faces continued population growth. This trend, plus population growth in adjoining towns, means that further increases in traffic flow are likely. The town may want to explore the development of regional park and ride lots and van pooling to facilitate commuting. This does not mean the town becoming a provider of such services. Rather, it could participate in regional efforts to manage traffic congestion at major bottlenecks in Hancock County.

E. PUBLIC FACILITIES AND SERVICES

1. Purpose

An understanding of current and likely future public facilities needs is essential in assessing likely new expenditures that a town could face in the future. This section aims to:

- a. assess major changes in Mariaville's services and facilities since the last comprehensive plan was prepared; and
- b. review current conditions and likely future needs.

2. Key Findings and Issues

As a rapidly growing town, Mariaville faces a number of public facility needs. The town office building needs renovation and improvement. The fire station, which is owned by the volunteer fire department rather than the town, is completely inadequate and the fire department is short of day-time volunteers. The transfer station is facing increased operating costs.

3. Highlights of 1991 Plan

The plan noted that the fire station was inadequate and the fire department needed to undertake a general upgrade of its equipment. As of 1991 there were plans to upgrade the transfer station. The plan predicted that an expansion to the Beech Hill School would be needed in ten years.

4. Municipal Buildings

a. Current Conditions

The town office was renovated in 1993. The building itself is over 100 years-old. It consists of a 560-square-foot main room, a 50-square-foot kitchen/storage area, a 60-square-foot bathroom, a furnace room and a hallway.

The facility is inadequate in several ways. There is insufficient storage space for town records, filing cabinets and related materials. The kitchen and bathroom are used for overflow storage. There is no separation between employee/select board work areas and areas of public contact. Room dividers are needed to separate the work areas. However, the current furnace requires an adequate flow of air and doors and room dividers may inhibit the flow needed for the functioning of the furnace.

The heating system is marginal due to a single heat distribution point. The building has no foundation. The pipes freeze along the back of the building in very cold weather. The conditions of the attic and under floor areas have not been evaluated in at least 12 years.

Town office staff presently consists of a full-time administrative assistant/tax collector/treasurer and a part-time (6 hours a week) town clerk. While there are no immediate plans to hire additional staff, additional clerical staff may be needed if the town continues to grow. This would allow the town office to be open more hours and reduce the need for closing in the event of staff absences.

b. Future needs

The town is exploring options to address the inadequacy of the town office building. This may involve a reconfiguration of current space, a possible addition to the building or even a new building. The current situation is likely to worsen as the town continues to grow.

5. Police Protection

The State Police and Hancock County Sheriff provide police protection services to Mariaville. Due to the large service area for these two organizations, response times vary greatly. The Maine Warden Service faces similar challenges in providing service to Mariaville. There is no local police department nor are there any plans to establish a department.

6. Fire and Ambulance Service

a. Facilities

Fire protection is provided by the Mariaville fire department, which also provides contractual service to Otis. The department is a volunteer organization and not officially part of town government. Rather, it is appropriated some town funds but also depends on local fund raisers. County Ambulance is the transport provider for ambulance service. The fire station is located on Mariaville Road (Route 181) approximately 3.8 miles north of the Otis/Mariaville town line. The majority of volunteers live within three to five minutes response time to the facility. The 1,500-square-foot, one-story station was built by volunteers in 1978. It was built using locally harvested timber and donated equipment.

It consists of a 200-square-foot office/training/mechanical/supply room and three heated bays and one unheated bay for vehicle storage. The station has many inadequacies. The office room is used for storage cabinets, turnout gear, the furnace and office equipment. Only about 96

square-feet are available for the department's mandatory training sessions. This effectively limits attendance at these sessions to six to eight people. There is no wall space available for projecting overhead slides or other visual aids during training sessions.

Sanitary facilities consist of an outhouse behind the building. There is no running water or wash area. This makes it impossible for volunteers to clean themselves properly before going home. Given the risk of volunteer contact with blood-borne pathogens and other body fluids when responding to a call, this is a serious health hazard.

The office area has several safety-related deficiencies. First, there is no exhaust system to remove toxic exhaust fumes that are generated while the truck engines are running when leaving for and returning from emergency calls. Second, there are no smoke, fire or carbon monoxide detection systems. Third, the room has only one direct exit, which limits emergency egress. Fourth, the slope of the surrounding terrain means that water runs into the building during the spring thaw and after major storm events. This makes the floor very slippery and causes dangerous ice build-ups in the winter.

The vehicle storage area also faces several deficiencies. First, the bays are too narrow to accommodate current vehicles. Second, the doors are too small to meet current NFPA (National Fire Protection Association) standards. Third, the department presently has to store three emergency vehicles outside plus additional pieces of equipment due to the shortage of bays. The department needs at least three more heated bays.

The building is too close to a public way. This causes a risk to staff while working on the vehicles outside the building. The facility fails to meet current public health standards. It also does not provide handicapped access in accordance with the Americans with Disabilities Act standards. In addition it falls short of NFPA and Occupational Safety and Health Association standards.

b. Staffing

The department had, in 2003, 20 volunteers, but only one of these is normally available on weekdays and about ten are available on weekend days. According to the fire chief, daytime coverage is presently inadequate. The department may have to explore options for funding some paid on-call personnel to provide day time coverage. At least two positions will be needed. There is no need for any paid staff on the weekends or during evening hours.

The current volunteers have difficulty meeting all the training requirements. First, as mentioned above, the training space is too small. This problem is particularly acute in the winter since some vehicles cannot be stored outside while training is taking place without the risk of

pumps and valves freezing. Second, volunteers have trouble finding the time to meet to train and to attend the state-sponsored training sessions because of their job demands. The training requirements for a volunteer fire fighter for structure fires are the same as for a full-time fire fighter in a paid department. Due to the extensive training requirements, it is increasingly difficult to retain fire fighters in Mariaville and the town faces a declining number of volunteers.

The department presently (late 2003) has no Intermediate level EMT (emergency medical technician) staff and has five Basic level EMT's and two first responders. According to the fire chief, the department will need by 2005, two Intermediate level, six Basic levels "and four first responders. Given the difficulty in recruiting and retaining volunteers, it will be challenging to meet these needs. For example, a Basic level EMT requires 117 classroom hours, 16 clinical hours and 8 field hours of field training. To qualify for an Intermediate level, the Basic EMT must undergo another 72 hours of classroom training and 72 clinical hours. There are additional hours required for continuing education and field hours.

c. Equipment

The current equipment inventory is shown on Table E.1. As seen several major pieces of equipment will need to be replaced between 2003 and 2008. Beyond replacement, there are several additional pieces of equipment that will be needed. These include turnout gear, a portable generator, two-way radio equipment, Holmatro rescue tools (a large cutter and spreader) and paging equipment. The department also needs a fire-rescue boat.

Table E.1			
Fire Department Vehicles, 2003			
Type	Year	Condition	Years of Service Left
Ward LaFrance Pumper, 1000 GPM, 750-gallon tank	1972	Poor	<1
GMC pumper/tanker 500 GPM, 2,500-gallon tank	1978	Fair	2-3
GMC Military 2.5 ton, 6x6 Forestry Carry-all	1966	Fair	3-5
Mack Pumper 1,000 GPM, 500-gallon tank	1982	Fair	3-5
Ford E-350 Ambulance Rescue	1990	Fair	2-3
Freightliner FL70, 250 GPM, 300-gallon tank rescue	1992	Good	3-5
SOURCE: Mariaville Fire Department			

d. Level of service

Response time to calls for service varies greatly. Volunteers can be at a site within fifteen minutes for a fire that is within two to three miles from the station if it is during an

evening or weekend. This time may increase to 20 to 40 minutes for more remote locations when fewer volunteers are in town. For the most remote areas, the response time may vary from one to two hours. The department currently has an ISO (Insurance Services Office) rating of “9.” If it acquires some of the new equipment, it could increase its rating to “8” or even “7.”

The town has mutual aid arrangements with Ellsworth, Aurora, Osborn, Waltham, Dedham and Eddington. The town also is a member of the Hancock County Firefighter’s Association. This allows the fire department to call in additional personnel if needed. These arrangements presently appear adequate.

Recent calls for service are shown in Table E.2. While there has been some fluctuation in the number of calls, there has been an overall increase. While some of this increase may be explained by population growth, some of it may also be due to factors such as dry conditions that caused a greater incidence of forest fires.

Table E.2 Fire Department Calls for Service			
Year	Number of Calls		
	EMS	Fire	Total
1996	5	16	21
1997	7	15	22
1998	15	32	47
1999	24	16	40
2000	26	13	39
2001	27	29	56
2002	36	27	63
2003	38	21	59
SOURCE: Fire Department Records			

In addition to regular fire fighting services, the department provides several prevention and education activities. These include fire prevention and emergency medical training and demonstrations at the Beech Hill School. The department also has conducted wood stove inspections and fire extinguisher demonstrations. It has, on request, cleaned chimneys and given out smoke detectors. The department would like to increase its training to include CPR, first aid, fire extinguisher operations and hunter and ATV safety.

e. Water supply and access

The dry hydrants in town generally work fine in the summer but sometimes freeze in the winter. There have also been cases where lake water levels have fallen below the intake level for the hydrants. Hydrants have also been damaged by ice during the spring thaw and occasional acts of vandalism. The department would like to supplement the dry hydrants with some 30,000-gallon underground tanks. Possible locations for these tanks include the fire station, North

Mariaville, Beech Hill School and the Otis church. There have been cases where the fighting of forest fires or structure fires in remote areas has been inhibited by the lack of water. The trucks are not capable of transporting enough water to fight the fire.

According to the fire chief, access to private, unpaved roads is a problem during mud season. Some roads have been designed with inadequate turning radii for fire trucks or are too narrow. Roads need to be maintained for year-round access.

f. Future needs

The department faces several long term needs. As mentioned above, there is on-going replacement of equipment plus some additional pieces of gear and equipment that will soon be needed. The town-funded equipment reserve fund supplements the primary funding sources for capital expenditures. Most funding comes from grants and department fund raising. It is getting increasingly difficult to find an adequate number of volunteers for week days. The major need is for a new fire station. The Department has already acquired the land. Ideally, the facility would consist of the following:

1. an approximately 144-square-foot fire chief's office and a separate EMS office of the same size;
2. a 400-square-foot EMS/fire department training room;
3. a 400-square-foot mechanical room to house plumbing, heating, electrical and emergency power systems;
4. a handicapped-accessible restroom;
5. a gear maintenance area; and
6. at least six equipment bays.

If the department continues to provide service to Otis, it may need a branch station in that town. The department would like to find a two-acre site for this facility.

7. Education

a. Recent trends and current conditions

Mariaville is a member of School Union 92, which serves eight towns surrounding Ellsworth. Mariaville students attend grades k-8 at the Beech Hill School in Otis. All high school students attend school on a tuition basis. The town pays for bus service to Ellsworth High School. As of 2003-2004, the town paid \$6,627 tuition for the Ellsworth and Brewer schools and about \$628 more for other schools.

The Beech Hill School has a rated capacity of 135 students and had, as of October 1, 2003 an enrollment of 109 students. School Union officials noted no state accreditation deficiencies. While all core facilities (such as the library and multipurpose/gymnasium) were deemed adequate by school officials several local observers have indicated that these two rooms are insufficient for the smooth operation of school programs. There are thirteen general purpose classrooms. Union officials would like to establish service room in the downstairs area. This

would require installation of an elevator and an emergency exit that can be kept cleared of snow in the winter.

Staff consist of a full-time principal and 8.5 full-time equivalent teachers. There is also a two-thirds time reading resource teacher and four two-fifths time staff positions for speech, art, physical education and music. Other staff include a secretary, two bus drivers, 1.5 cooks, 1.5 custodians and 4.5 educational technicians. There is also a one-fifth time school nurse.

The school was most recently expanded in 1996-1997. The original facility was built in 1989 and required expansion due to increased enrollment by 1991. No further expansions are foreseen by School Union officials.

Enrollment trends from 1995-1996 to 2003-2004 are shown on Table E.1. While there have been some fluctuations, enrollment showed an overall increase from 76 students in 1995-1996 to 101 students in 2001-2002. There has been a decrease since 2001-2002, but these data are for two years only and are not sufficient to establish a trend. Given the rapid increase in the town's population in past years, it will be important to monitor school enrollment trends since a resumption of enrollment increases could require further expansion of school facilities.

Table E.3			
School Enrollment Trends, Mariaville 1995-2003			
Year	K-8	9-12	Total
1995-1996	61	15	76
1996-1997	58	13	71
1997-1998	72	12	84
1998-1999	66	18	84
1999-2000	65	23	88
2000-2001	68	31	99
2001-2002	66	35	101
2002-2003	69	25	95
2003-2004	52	25	77
SOURCE: School Union 92, October 1 enrollments			

b. Future needs

The School Union does not presently have any school enrollment projections available. However, it does not expect to need to add on to the Beech Hill building. Union officials did not identify any pressing problems facing the school system. Some local residents have expressed concern that the school is understaffed.

8. Public Works

All road maintenance and related public works is done on a contractual basis. Due to the distance between East Mariaville and the rest of the town, there is a separate snow plowing contract for that part of town. There is no town garage nor any town-owned equipment or staff. The road commissioner noted no problems with the current arrangements and there are no plans to change them in the foreseeable future. No problems were noted with any town-owned roads. Problems are addressed as they arise.

9. Solid Waste

a. Current Conditions

Currently, the town of Mariaville has a transfer station that is open on Saturdays from 8:00 a.m. until 4:00 p.m. There is no fee to use the facility. The town does, however, require residents to display a decal in vehicles during transfer station visits. A new decal is provided, at no cost, along with tax bills each year to property owners with a structure located on their property. Two part-time staff members are employed at the transfer station.

The parcel of land where the transfer station is located is approximately 50 acres and is owned by the town. A construction and demolition debris landfill was once located on the land but has since been capped.

The town had, as of early 2004, contracted with Sunrise Lilac to deliver trash to the Penobscot Energy Recovery Company (PERC) waste-to-energy incineration facility in Orrington. The company is notified whenever the compactor is in need of emptying and the town pays it on a per-load basis. No commercial material is accepted at the transfer station.

The town has been recycling since 1995. An old railroad car serves as the recyclables drop-off and storage area. Recyclable materials collected currently include paper, corrugated cardboard, plastic, glass, metal, tires, white goods, construction and demolition debris and wood. The town is a member of the Maine Resource Recovery Association (MRRA). Most recyclables are transported by Harris' Downeast Disposal to the Bangor Recycling Center for processing. They are notified when a shipment is ready and the town pays on a per-load basis.

In addition to the recycled material already mentioned, residents may drop off appliances or other white goods without Freon, construction and demolition debris, wood and tires. No-cost permits are required if residents have more than one pick-up load of construction and demolition debris. Residents are expected to make alternative arrangements for the disposal of roofing materials. The facility has a Swap Shop where residents can drop off or browse for no longer wanted but still useful items. There are no annual bulky waste collections.

Each year, the State Planning Office (SPO) requires towns to fill out an annual report which is used to compile recycling rates across the state. Between 2001 and 2002, Mariaville's adjusted recycling rate increased from 9.8 percent to 11 percent. The SPO describes the town's trend as "variable", neither increasing nor decreasing over recent years.

b. Future Needs

Town officials are considering changes to the site. Plans for a new center have been drafted and town voters raised funds in 2004 to begin engineering and related activities for new solid waste and recycling activities. In 1992, the transfer station had a budget of \$25,000. By the year 2002-2003, the budget was increased to \$39,000, or 64 percent. This increase is due in part to the rapid population growth the town has faced. The increase probably would have been more had the town not undertaken recycling since the mid-1990s. The newly reconstituted recycling committee may help develop other recycling and waste reduction strategies.

F. RECREATION

1. Purpose

A comprehensive plan must assess a town's recreation resources. It is important to understand long-term recreation needs in planning for the future development of the town. This section will:

- a. describe current recreational resources serving Mariaville residents;
- b. assess the current adequacy of these resources; and
- c. assess future adequacy based on the projected growth patterns of the town.

2. Key Findings and Issues

Mariaville has limited recreational resources. Its few public access points to surface water are small in size, have inadequate parking and do not provide for recreational swimming. There are few space places for walking and no formal network of snowmobile or ATV trails. Informal public access to the woods is becoming more restricted as more land is posted. Given the town's projected growth rate, these facilities are likely to be even more inadequate in the future.

3. Summary of 1991 Plan

Public recreational resources in town were limited. These, however, were supplemented by easy public access to private land for hunting, fishing and hiking. There was some concern that if posting of land continued, more public recreational resources might be needed.

4. Current Recreational Resources

Town recreational resources and facilities are still very limited. There are no town-owned ball fields, playgrounds or parks. Previously, Mariaville residents had access to the beach in Otis but access is now restricted to Otis residents.

There is a town landing with 100 feet of frontage on Graham Lake off the Morrison Farm Road. It has a small parking area and beach. It is about 0.192 acres in size. This facility is too small to meet town needs. The landing site faces several limitations. First, the varying water levels on Graham Lake mean that it is not always usable. Second, its small size limits its use. Third, its location is not well known by many residents.

There is another landing site at the intersection of the River Road and Route 181. There is no specific town acreage at this site. Rather, it lies in part within the right-of-way of the two

roads and some privately owned land is used for parking. As with the town landing, access varies according to water levels. It is used extensively for boating, fishing, swimming, hunting and snowmobile operations. It is also used by the fire department for replenishing water supplies and training exercises. There are no town-owned facilities serving East Mariaville. (There is further discussion of water resource issues in the Water Resources chapter (Section G)).

There is a boat ramp on Hopkins Pond, which is owned and maintained by the Hopkins Pond Mariaville Homeowners Association for the benefit of association members and the towns of Mariaville and Clifton. It is a 1.5-acre site. It is adequate for small boat launching. According to a member of the Association, no major repairs or expansions are needed. Present usage is very light, an average of fewer than seven launches a week during the summer.

There is also considerable informal access across private properties to the river, lakes and ponds. No inventory exists of these sites and, out of respect for private property owners, no specific sites are mentioned in this plan. There has been increased posting of private property, which restricts public access. Other land has been lost through subdivision activity. Further sale of forest land may result in more loss of access.

While there are no town-sponsored recreation programs, the town does maintain a recreation fund for town recreational activities. The school system offers various programs for school-age children. The town is not presently involved with any programs targeted at adults. Mariaville does provide financial support for the YMCA in Ellsworth.

There is no formal network of trails for walking, hiking, cross country skiing, snowmobiles or ATV's. Those wishing to exercise often run or jog along the main roads where there is often inadequate distance between pedestrians and vehicles. There are some abandoned snow mobile trails that are no longer maintained. There are also some logging roads that offer access to the woods.

5. Future Recreational Needs

As the town continues to grow, its limited public access points to surface water will face increased pressure. This will be particularly the case if there is further posting of private land and tracts currently held for large-scale forest use are subdivided and sold. The town may want to explore options to improve public access soon since land is likely to become more expensive as the town grows. It may also want to explore developing other outdoor recreational areas and a trail system. This could be part of an overall open space preservation strategy that include revitalizing abandoned trails.

One specific need is development of a town recreational swimming area. The need for such a facility is greater due to the closing of the facility in Otis to Mariaville residents. The swimming area could be part of an overall waterfront park. Any effort to develop waterfront facilities will need to consider possible threats from invasive species.

The town may also want to explore options to manage high speed, personal watercraft. The noise and speed may disrupt natural communities, such as loon nesting areas and traditional uses of the town's lakes. In addition, there may be a safety threat to inexperienced operators. On Hopkins Pond, there are clusters of rocks just beneath the surface that could be hit by a boat. Submerged tree stumps are a problem in Graham Lake.

G. WATER RESOURCES

1. Purpose

A comprehensive plan must assess a town's water resources. The availability of groundwater is crucial in determining where the majority of future development will occur. This section will:

- a. describe the characteristics, uses, and quality of Mariaville's significant water resources;
- b. predict whether the quantity or quality of significant water resources will be threatened by the impacts of future growth and development; and
- c. assess the effectiveness of existing measures to protect and preserve significant water resources.

2. Key Findings and Issues

Mariaville residents are dependent on private wells for their drinking water supply. No problems have been noted to date with the adequacy of ground water supply in town. Graham Lake faces water quality problems due to periodic drawdowns by the utility company that owns the dam, flow from the Union River and its phosphorus count. Hopkins Pond has very high water quality and is one of the gem lakes in Maine. It is vulnerable to declines in water quality in the future.

3. Summary of 1991 Plan

The plan mentioned that there were insufficient water quality data for lakes within the town. Residents relied entirely on private wells for domestic water supplies, there were no public water systems. The plan expressed concern about the potential for contamination from failing septic systems along lakeshore.

4. Lakes, Ponds, and Watersheds

There are four lake watersheds within Mariaville. These are Hopkins Pond, Oran Pond, Jellison Hill Pond and Graham Lake, which is man-made. Oran Pond and parts of Graham Lake and Hopkins Pond are within the town's boundaries. Jellison Hill Pond is located in Amherst and only a small portion of the watershed lies within Mariaville (see Map 3: Water Resources and Table G.1 below). In planning for future development, it is important to consider the water quality impacts from development in an entire watershed. Development anywhere in a watershed can result in stormwater runoff that can carry contaminants into a lake.

The Maine Department of Environmental Protection (DEP) classifies all natural lakes and ponds with over ten acres of surface area as Great Ponds, unless otherwise noted, and classifies their water quality as GP-A. They are considered to be a high quality fish habitat and excellently suited to wildlife, swimming, and water contact recreation. The water is potable but the DEP does recommend minor treatment before drinking. Great ponds that are not high quality are listed as "non-attaining" or "threatened." DEP *Great Pond* status is described below with descriptions of each water body, according to the 1990 Maine DEP Water Quality Assessment, data from the 1991 comprehensive plan and more recent data from the DEP.

Figure G.1 lists drainage and phosphorus water quality information for lakes and ponds in Mariaville except for Jellison Hill Pond, which has less than one acre of its watershed in town. The table indicates the susceptibility to phosphorus loading and other contaminants. Phosphorus is a naturally occurring element that clings to soil particles and organic matter. Increasing amounts of phosphorus runoff into a lake will cause algae to become a nuisance and negatively affect cold water fish and may increase the chances of infestations of invasive plants such as milfoil. An abundance of algae turns the lake green and blocks sunlight to deeper levels. This process can destroy the water quality of the lake. Many communities have taken measures to regulate phosphorus runoff resulting from residential development and related activities in their watersheds. If interested, Mariaville could pursue the potential of an in-depth study of phosphorus control measures with the DEP. A simple and less expensive option would be to collect regular data on phosphorus content as part of the ongoing Maine Volunteer Lake Monitoring Program.

Table G.1 Characteristics of Ponds and Lakes Mariaville							
	Surface area (acres)	DDA/town (acres)	% of total DDA	Water Qual.	Vulnerability	TP	Comments
Graham Lake	7,865	8,535	7.4%	Below avg.	low	17 ppb	See notes
Hopkins Pond	442	520	34%	Above avg.	high	8 ppb	See notes
Oran Pond	33	70	100%	N/A	N/A	N/A	See notes
SOURCE: Maine Department of Environmental Protection							

Surface area: Surface area of the water body in acres

DDA/town: Direct drainage area (watershed) of the water body in acres in Mariaville

% of DDA: Percent of total DDA located within Mariaville

WQC: Water Quality Category based on the water bodies' vulnerability to phosphorus levels. This rating is derived from many variables such as flushing and growth and development rates.

TP: Total phosphorus based on parts per billion

Comments: Graham Lake: considered below average due to poor Secchi Disk transparency, total phosphorus and chlorophyll-a. Draw downs by the utility company and deposits from the Union River mean a high level of sediment. The potential for TP sediments to leave the bottom and become available for internal loading is low.

Hopkins Pond: water quality is considered above average based on measures of Secchi Disk Transparency, total phosphorus and Chlorophyll-a. The potential for nuisance algal blooms on the Hopkins Pond is low. According to the State Planning Office and the Great Pond Task Force, Hopkins Pond is one of the gem lakes of Maine. According to University of Maine professors K. Webster and S. Kahl oxygen levels appear to be significantly depleted in the summer. This depletion may be an indicator of nutrient enrichment from development around the lake. This type of oxygen depletion is often an early-warning indicator of declines in water quality in the future and may already be a negative factor for cold water fish. This assumption is supported by data from MDIFW Fisheries Biologists. Oxygen levels have declined dramatically between 1978 and 2004. In August 1978 oxygen levels at 65 feet were at 6 ppm (parts per million). In August 2004, levels were at 3.5 ppm. Fish need 5 ppm to survive. This lowering of oxygen levels reduces the volume of usable cold-water habitat for lakes' wild trout and stocked brook trout population.

Oran Pond: There are presently no water quality data for this pond.

N/A: recent data not available

5. Water Quality Classification

The DEP classifies all surface waters in Maine. These classifications regulate the discharges of pollutants. All streams in Mariaville are presently classified "B". Class "B" water is the third highest state classification. These waters are suitable for drinking after treatment, fishing, recreation in and on the water, and industrial processes and cooling water supply. According to DEP regulations, discharges to Class "B" waters shall not cause adverse impacts to aquatic life.

6. Ground Water Resources

The town's aquifers are shown on Map 3. As seen, there are several areas that have yields of as much as 10 – 50 gallons per minute and area that may have yields in excess of 50 gallons per minute. While aquifers are prime areas for ground water, wells outside of these areas are usually sufficient for the needs of a single family home.

The DEP has rated Mariaville's ground water quality as GW-A. This is the highest DEP classification for ground water. Such waters shall be of such quality that they can be used for public water supplies. They shall be free of radioactive material or any matter that affects their taste and odor.

7. Community Water Systems

There are no publicly-owned water systems in Mariaville that serve a residential area.

8. Existing and Potential Threats

There are two different types of water pollution: point source, and non-point source. Point source pollution is that which comes from a specific source, such as a pipe, and can easily be identified, measured, licensed, or removed. Non-point pollution comes from a diffuse source such as stormwater run off from a parking lot or eroded soil from a timber harvesting operation.

Given the rural nature of Mariaville, point pollution is not a problem. There are several potential sources of non-point pollution. The first is increased rates of phosphorus loading resulting from timber harvesting and a greater volume of land development. This is particularly the case for Hopkins Pond. High rates of erosion in this watershed could result in serious water quality problems.

One potential threat is invasive aquatic species. These can be unknowingly spread by boats being transported by trailer from another lake. Such species can quickly spread in a lake and lead to a deterioration of water quality and diminished recreational values. This can result in lakefront property values deteriorating and a subsequent loss to the tax base.

Improperly maintained septic tanks and privies can contaminate ground and surface water. Other threats include the seepage of nitrogen, pesticides and petroleum products. Gravel mining may also affect ground water quality by eliminating an aquifer area. As of April 1, 2005 there were a total of eleven gravel pits in town. Six of these pits were in active commercial use. They account for about 47 acres. Since aquifer areas tend to be areas with large amounts of gravel, there is the risk of contamination from gravel mining. Equipment stored in gravel pits can seep oil into an aquifer. There are also offsite impacts from gravel mining. These include noise, dust and vibration from mining operations and truck traffic.

9. Flood Hazard Areas

Flood hazard areas, as mapped by the federal government, are shown on Map 3. A general idea of the number of homes in designated flood hazard areas can be obtained from Federal Emergency Management Agency (FEMA) flood insurance records, which indicate a total of six policies issued for Mariaville. There are no records of any claims being paid. The town's flood plain ordinance regulates land use activities within the flood plain.

10. Wetlands

Mariaville has two major wetlands plus numerous small wetlands. The major wetlands are the Jordan Brook flowage in Amherst to the East Branch of the Union River and Jellison Meadow. The wetlands of ten acres are shown on Map 3. These wetlands are subject to shoreland zoning protection. They amount to approximately 537 acres of which 24 are medium habitat value and the rest are high habitat value. It is important in reviewing future development to assure that these wetlands are protected.

11. Rivers and brooks

The Union River is one of the major features of Mariaville. As mentioned in the *Archaeological and Historic Resources* section, the town's history has been shaped by the river both as a transportation route and the site of mills. One indicator of the river's value is the placement on the Nationwide Rivers Inventory (NRI) of a fifteen-mile segment of the West Branch from the Route 181 bridge to town of Great Pond. The NRI is a list of free flowing rivers with "outstandingly remarkable values." The Union River segment's recognition is due primarily to its historic value as an Atlantic Salmon fishery.

The major feature of the town's brooks and streams is the abundance of fish. Maine Department of Inland Fisheries and Wildlife biologists recommend that the streams of Jordan Brook, Garland Brook, Dumb Brook, Little Dumb Brook and Jellison Meadow Brook be designated as significant fisheries habitat. These waters are "extremely important" brook trout habitat. Tannery Brook has extremely cool waters, which means it may also have habitat value.

12. Regional Considerations

The major regional water resource issue is shared watersheds. Graham Lake is shared with several towns and Hopkins Pond is shared with Clifton and its watershed includes a small portion of Amherst. The town may want to work cooperatively with these towns on lake protection measures. There has also been considerable background work done on the entire Union River watershed by the Union River Watershed Coalition.

13. Adequacy of Water Supplies and of Current Protection Measures

Given the rural nature of the town, water shortages are extremely unlikely. Residents will continue to depend on private wells and no construction of any major communal water system is likely. The town presently depends on shoreland zoning and its subdivision ordinance to protect water resources. There are no specific provisions in the subdivision ordinance to minimize phosphorus runoff. The standards for erosion and sedimentation are very general and offer little specific guidance to the developer or the planning board. There are presently no aquifer protection standards or gravel mining provisions in town ordinances. Continued growth and development in town may result in the need for expanded code enforcement.

H. NATURAL & SCENIC RESOURCES

1. Introduction

A comprehensive plan should provide an overview of a town's natural resources. Specifically, this section will:

- a. describe Mariaville's critical natural and scenic resources;
- b. predict whether these resources will be threatened by the impacts of future growth and development; and
- c. assess the effectiveness of existing measures to protect and preserve these resources.

2. Key Findings and Issues

Mariaville has a diversity of wildlife and other natural features. Areas of particular interest include the Mariaville Falls area, the floating islands on Graham Lake, the bald eagle nest site on Graham Lake and the bald eagle feeding and wintering areas on Hopkins Pond. There are also several deer wintering areas.

3. Summary of the 1991 Plan

Rather than summarize the 1991 plan, this entire section is taken largely verbatim from that plan and is updated to reflect new data and changes in state law.

4. Key Natural Resources

a. Areas Identified By the State Natural Areas Program

The Maine Natural Areas Program recognizes certain key sites across the state. Natural areas are defined as naturally occurring phenomenon of statewide significance which because of their uniqueness, rarity or other critical factors are deemed important enough to warrant special planning and management consideration. These areas include those places where changes in use would jeopardize resources of natural, educational, historic, archaeological, scientific, recreational, or scenic significance. The classification is based on the following criteria:

1. the unique or exemplary natural qualities of the area or site;
2. the intrinsic fragility of the area or site and sensitivity to alteration or destruction;
3. the voluntary commitment to conserve or protect the area;

4. the present or future threat or alteration and destruction; and
5. the economic implications of inclusion of an area or site on a register.

The State Critical Areas Program, the predecessor of the Natural Areas Program, identified the Mariaville Waterfall and nominated the site to the Program but the site has not been registered with the program. Comprehensive planning committee members suggested in the 1991 plan that this Program should examine the floating islands in Graham Lake to see if they should be nominated or registered with the program.

b. Areas Identified by the State Natural Heritage Program

Sites listed with the State Natural Heritage Program are selected for their contribution to the natural diversity in Maine. The Mariaville Waterfall is also the only natural feature identified in Mariaville and listed with the State Natural Heritage Program.

c. Scenic Areas and Views

Scenic areas and views are important to a community both for their aesthetic qualities and their recreational value. These areas provide a place for citizens to enjoy the beauty of the outdoors and increase the quality of life in the town. Although there are a number of scenic areas in Mariaville, 45% of respondents to the 1991-1992 Growth Management Opinion Survey felt that they were adequately protected at present. The comprehensive planning committee has identified several key scenic views:

1. Route 181, south of the Pyle Road: views of Tunk, Black, Caribou and Catherine Mountains;
2. Goodwin's Bridge on Route 181 over West Branch of Union River: views of river and surrounding mountains;
3. Mariaville Falls;
4. Floating Islands on Graham Lake from Routes 179 and 181; and
5. Hopkins Pond (generally)

d. Essential and Significant Wildlife Habitat

The only 'essential' wildlife habitat in Mariaville is the bald eagle nest site on Graham Lake (see Map 7). Under Maine's Endangered Species Act a quarter-mile radius around the nesting site is protected. Hopkins Pond hosts a bald eagle feeding and wintering site. In Mariaville, the principal species of large game are deer and bear, but deer are by far the more important. Moose are thinly scattered in groups of two or three and range near isolated marshes and bogs.

Small game includes ruffed grouse, snowshoe hare and woodcock. Teal and black duck are hunted along streams and lakes. Other ducks and the Canada goose are hunted as they

migrate south. The economic value of fur bearers, particularly beaver and mink, fluctuates greatly. Trapping was once important but is no longer of much significance. Some trapping of beaver and mink, as well as muskrat, otter, and fisher is still done. Fisher have recently re-inhabited the area.

Winter has long been considered a bottleneck for survival of white-tailed deer in the Northeast. During winter, deer in northern climates often subsist on limited quantities of low quality foods, while simultaneously coping with low temperatures, chilling winds, and higher energy requirements. The primary behavioral mechanism for deer to conserve energy during winter is to move to traditional wintering areas or yards. There are three deer wintering areas in Mariaville which are classified as "significant" wildlife habitat of indeterminate rating under the Natural Resources Protection Act (see Map 7).

Also under the Natural Resources Protection Act the Maine Department of Inland Fisheries and Wildlife has, located 'significant' waterfowl and wading bird habitat in Mariaville, including nesting and feeding areas, which are shown on Map 7. These sites are located on Little Dumb Brook, East Branch of the Union River, Frost Brook, Dump Brook, Harwood Island, Lakewood Island and Oran Pond.

Inland fisheries are freshwater habitats such as streams, rivers, lakes and ponds with existing or potential value to fish. Aquatic habitats are also some of the most sensitive and vulnerable. Land use activities that directly affect water quality can significantly alter or destroy the value of these areas for fish. Land clearing or development in the adjacent upland habitat, or riparian zone, can also degrade a fisheries. Riparian habitats protect water quality and fisheries values by filtering out excessive nutrients, sediments, or other pollutants leaching in from upland areas, maintaining water temperatures suitable for aquatic life, and contributing vegetation and invertebrates to the food base. Riparian habitat is also important as cover for the many species of wildlife attracted to aquatic systems, and serves as a protective travel corridor for movement between undeveloped tracts of land.

The principal fisheries in Graham Lake are smallmouth bass, chain pickerel and white perch. Other fishes found in this lake are salmon, brook trout, brown trout, yellow perch, hornpout (bullhead), smelt, American eel, white sucker, minnows (common shiner), fallfish, creek chub, redbelly dace, golden shiner, banded killfish and pumpkinseed sunfish. Habitat in this Lake is ideally suited for warm water fishes. Stumps and aquatic vegetation along the shorelines provide abundant cover for pickerel and smallmouth bass. The lake's deeper waters support abundant populations of white perch.

The principal fisheries in Hopkins Pond are lake trout and brook trout. Other fishes found in this lake are hornpout, smelt, white sucker, minnows (creek chub and common shiner), banded killfish, ninespine stickleback, and pumpkinseed sunfish. The pond is no longer suited for management of salmonids as the pond now has a limited oxygen supply on the bottom. Sufficient oxygen levels for salmonids and other fish stops at 45 feet in mid-summer.

There is also an abundance of fish in the various streams and brooks in town. According to the Maine Department of Inland Fisheries and Wildlife (MDIFW), Jordan Brook, Garland

Brook, Dumb Brook, Little Dumb Brook, Jellison Meadow Brook, Frost Brook and Jellison Pond Brook are all “extremely” important brook habitat. The MDIFW recommends that these brooks be designated as significant fisheries habitats.

Mariaville is host to a bald eagle nest site on Graham Lake, which is shown on Map 7. State regulations protect areas within one fourth of a mile of the nesting site from development and the town is responsible for enforcing these regulations.

5. Assessment of Threats to Mariaville’s Scenic and Natural Areas

The town’s scenic and natural areas are threatened by the fast rate of land development. Large, undeveloped pieces of land could be fragmented by future development, timber harvesting and gravel mining destroying the habitat of certain species. Another possible threat is from the changing water levels on Graham Lake.

6. Adequacy of Existing Measures to Protect Scenic and Natural Areas

Mariaville has several measures in place that help protect its scenic and natural areas. First, it has a resource protection district in its shoreland zoning ordinance. Second, the subdivision ordinance provides general guidelines for new development and to help mitigate natural resource impacts. Third, the Union River Watershed Coalition is exploring other protective measures in the entire Union River watershed. These measures include landowner education and identification of key natural resource areas.

These measures are important first steps in protecting the town’s natural and scenic resources. They could be enhanced by more in-depth land use ordinance provisions for natural resource protection. These could include detailed requirements in the subdivision ordinance that natural resources be identified and protected. If the town were to enact town-wide zoning, it may want to designate areas with key natural resources as rural and perhaps enact a natural resource protection overlay zone. The overlay zone would require stricter standards if a given natural resource were present.

I. HISTORICAL and ARCHAEOLOGICAL RESOURCES

1. Purpose

A comprehensive plan should present an overview of a town's historical and archaeological resources. It is important that future development decisions take into account the presence of any valuable features from the town's past. Specifically, this section:

- a. presents a brief history of the town;
- b. describes Mariaville's historical and archaeological resources;
- c. assesses threats to those resources; and
- d. assesses the adequacy of existing measures to protect and preserve these resources.

2. Key Findings and Issues

There are no state-registered historic or archaeological sites in Mariaville. There are several local buildings of historical interest. Presently, the town has no measures in place to protect these resources but they don't face any immediate threat.

3. Summary of the 1991 Plan

The key findings and issues for 2003-2004 were basically the same in 1991.

4. Historical Background (taken from the 1991 plan)

The entire Union River/Graham Lake river has significant historical value for the Town. Studies of Indian tribes in Maine indicate that the Union River Valley was not the site of an Indian settlement. There is, however, evidence that the nomadic Red Paint People were in Hancock County and may have used this area for hunting and fishing as it later was by the MicMacs, Maliseets and Wabenaki (Penobscot).

All of Hancock County was late being permanently settled, for it was part of the land between the Penobscot and St. Croix Rivers that was disputed by the French and English for over 150 years. This dispute was formally ended by the Treaty of Paris in 1763; the actual defeat had come in 1759 with the fall of Quebec. The first rush of settlement was along the coast; inland settlements such as the Mariaville area were not built until 1800. The forest covered area was not conducive to farming and the earliest settlers along the Maine coast were seeking farm lands.

The Union River waterway, which was to provide transportation for the "up river" lumber to ships at Ellsworth, lured the first settlers (1767, 1800) to the Town and influenced the

growth pattern of the roadways. The first short-lived settlement (1767-1774) at the Oxbow (mouth of Garland Brook) was populated by Andrew Flood and his family.

After the American Revolution in 1786 the Massachusetts government designed a land lottery to sell off their eastern lands (Maine). General Henry Knox had bought one million acres on credit. When he realized he could not pay his debt (10 cents an acre), he convinced William Bingham, a wealthy Philadelphia banker, to take the lands. Bingham purchased the Knox land and another million acres (in Hancock and Washington Counties) for 12 1/2 cents an acre on May 24, 1793. Bingham wanted to develop his lands with roads, industry, mills and churches so that he could sell his land at a profit to settlers. By 1797 Bingham had sold half his holdings to Baring House of England managed by his son-in law Alexander Baring.

In 1795 David Cobb was appointed Bingham's land agent. He worked from his headquarters in Mariaville planning roads into the inland territory and managing the harvesting of lumber. In 1796 Cobb appointed Donald Ross of Ellsworth to supervise the lumber rafts and to protect the forests along the Union River. In 1798 Ross chose John Fabrigue to oversee a 'hot house settlement' at "the Great Falls" on the West Branch of the Union River. All building materials were brought up from Ellsworth on barges or whale boats. Fabrigue, Mr. Peters and Mr. Pond built a dam, a saw mill, a boarding house and a store.

In 1800 Cobb designed a system of roads into the area. Cobb's original road ran from Taunton Bay in Franklin up the east side of the Union River, crossing the river on the current tree farm property and continued to Great Falls. By 1801 this road connected to the one in East Eddington linking with Bangor and by 1802 the road to Beddington (the present Air Line Road) was well begun. For a time the Great Falls was the center of all traffic to Ellsworth, to the Penobscot and to the Eastern lands. The community grew adding a tannery, a grist mill, several homes and a store.

The following excerpt is from William Bingham's Maine Lands 1790-1820, edited by Frederick S. Allis, Jr., 1954. In a letter from David Cobb to C.W. Hare of Philadelphia on October 29, 1809:

Our Mariaville settlements are very pleasing and fast increasing. Fifty families are now on those four townships, but they have been this year unfortunate in having their wheat blasted. The settlement at No. 38 and No. 1 consists of fifteen families and will increase. No money has ever been receiv'd from these settlements, only by way of the saw mill we erected at Mariaville.... Within two years past I have undertaken to bring forward two new farms, by the labour of western husbandman, for the sole purpose of teaching the Yahoos here, these log stealing scoundrels, how to get their living by cultivating the soil, and I have the pleasure, this early, to say altho' it costs me 600\$ a year it has had its effect.

After Ross and Bingham died in 1804 and both Fabrigue and Cobb left the area the land was managed by Cobb's son-in-law John Black who came to live in Ellsworth (1809-1811). Black understood (as did Bingham before his death) that the settlement would thrive on lumbering not on farming. The years from 1810-1820 were difficult years for all the Eastern

Maine settlements. The Embargo Acts, the War of 1812, the continued land disputes between the United States and England, disputes between Maine and Massachusetts, and the severe winters worked against the settlers. By 1820 the mills at the Great Falls had been destroyed by floods and fires and the settlers decided to raft the logs to mills in Ellsworth.

Mariaville was incorporated as the 23rd town in Hancock County on February 29, 1836. It consisted of Township 20 north of the river (East Branch) and Township 14 west of the river. In 1850 that section of Mariaville consisting of Township 14 petitioned to be a separate Town called Tilden; Township 20 area countered the petition. On July 17, 1852, the towns were finally rejoined.

The earliest industry recorded in the town are the saw mill and the grist mills built at Mariaville Falls (1800-1804). John Jordan ran a grist mill between 1830 and 1843 on Garland Brook. A small tannery was built and operated by Daniel Hill until 1850. The Mariaville Tannery operated by Chauncy Case and Jeremiah Jordan operated from 1845-1892 when it was struck by lightning and burned. In 1888 A.F. Merrill took over a spool mill in Mariaville from John Kelliher who ran it from 1884-87. Henry Frost built a gasoline operated mill in 1912 in which he sawed long and short lumber and did turning.

Perhaps the most significant event of the 20th century, was the creation of Graham Lake. In 1923 the utility company impounded the Union River and established Graham Lake, named for Edward Graham, then president of Bangor Hydro. Approximately 5,200 acres were flooded. Although no homes were destroyed, the man-made lake covered privately owned hay fields and forest land. The impoundment disrupted the existing road system in Mariaville. The road that connected the Morrison Road to East Mariaville was flooded. Access to East Mariaville now required a trip out of town.

The lake affected the town in several other ways. One is the erosion caused by the changes in lake water levels. Another is hazards to boaters caused by the remains of trees in the flowed area. A third is the development of lakeside properties first for second homes and now an increasing number of year-round homes. This development has resulted in a significant portion of the town's residents living on private roads, not maintained by the town.

5. Archaeological and Historic Resources

a. State recognized sites

The Maine Historic Preservation Commission (MHPC) maintains an inventory of sites that have been registered with that agency. These sites must meet certain criteria to be considered of interest. As of 2003, there were no state-listed sites in Mariaville. This does not mean that there are not any sites of interest, rather none have been reported and no professionally conducted survey has been completed.

The MHPC recommends that a comprehensive survey be conducted of the town's above-ground historical resources. The MHPC also recommends that there be a survey of historic

archaeological sites. Fieldwork could focus on sites relating to the first Euro-American settlement in the town. These steps would allow the town to determine which, if any, sites or structures would be eligible to be placed on the National Register of Historic Places.

National Register listing offers properties limited protection when federal monies are involved. Consideration must be given to alternatives before federal funds can be used in a project that might alter a property on the Register. There are also certain tax advantages to renovating historical properties. Listing **does not** restrict the decisions of private property owners to do what they wish with their property. Rather, if a property is altered by an owner in a way that destroys its historic character, that property is subject to removal from the Register.

b. Locally recognized sites

Mariaville has a number of sites whose historical value has been recognized locally. These include:

1. Mariaville Falls or the Great Falls: this early settlement site has been disturbed by gravel mining and timber harvesting, but still may contain some records of both white and Native American settlements. There is said to be an early cemetery in this area;
2. Local Cemeteries: One old burial site is the Mariaville Falls Cemetery mentioned above whose exact location is unknown. No stones remain at this site. Other old sites include the Kingman cemetery (located on private property in 2004) whose location is also unknown and the Keliher Cemetery in North Mariaville with thirteen visible graves. The Brimmer Cemetery (formally known as the Pyles Cemetery or Greenwood), the Frost Cemetery, the Tannery Hill Cemetery are all mowed by the town. The Brimmer and Tannery Hill Cemeteries are town property and maintained by the town. The Penny and Frost Cemeteries are maintained by friends and family. Both the Penny and Tannery Hill Cemeteries are closed. Lots in the Brimmer Cemetery may be purchased from the town and those in the Frost cemetery may be purchased privately.
3. Town Hall: formerly the District One School House, was built in the 1800's;
4. Former Lincoln School: built in the 1800's across from the Morrison Farm Road to serve as the District Two School. Now privately owned;
5. The former American Baptist Association Church building (now privately owned): was built in 1902;
6. The Brick House: built in 1828 by Eben Jordan. Eben dug the clay from his father John Jordan's property and fired the bricks in his own brick yard on Garland Brook. This house is the only one constructed from brick manufactured at Eben Jordan's brick yard. It was planned as a two-story structure until the kiln

was destroyed by a fire. The plans were subsequently modified as the existing one and a half story structure attests; and

7. Old Tannery Building sites. The town may want to explore having some these sites placed on the National Register of Historic Places. In the case of privately owned property, this would have to be the decision of the owner. All the town could do is facilitate listing.

6. Assessment of Threats to Historic and Archaeological Resources

There are no immediate threats to historic and archaeological resources in Mariaville. Over the longer run, there is some risk of having sites unknowingly damaged through development. If the town is unaware of the location of sites, it has a limited ability to protect them.

7. Effectiveness of Existing Protection Measures

Mariaville has no specific ordinances that protect historic resources. Standards could be added to the subdivision ordinance and, if the town was to enact town-wide zoning, to that ordinance also.

J. AGRICULTURAL & FOREST RESOURCES

1. Purpose

This section presents an overview of Mariaville's farm and forest resources. Specifically, this section:

- a. describes the extent of farm and forest lands in Mariaville;
- b. predicts whether the viability of these resources will be threatened by the impacts of growth and development; and
- c. assesses the effectiveness of existing measures to protect farm and forest resources.

2. Key Findings and Issues

Forestry is the predominant land use in town. The main farming activity is blueberry raising. Potential sale and subdivision of large tracts of commercial forest land is a concern. Other concerns are gravel mining in forested areas and the environmental impacts of large scale timber harvesting.

3. Summary of the 1991 Plan

The plan mentioned that the town was heavily forested and that several large parcels of forest land were owned by commercial timber companies. With the exception of some blueberry fields, most farmland in Mariaville was used for home consumption.

4. Agricultural Resources

Mariaville has relatively little farmland. No farmland is listed as being held in the preferential farmland taxation. There is one 147-acre parcel held in open space taxation. The major farming activity in Mariaville is blueberry raising.

5. Forest Resources

Forested land is the predominant land cover in Mariaville. While no firm figures are available, at least 90 percent of the town's 29,760 acres of land area is forested. Nearly half of this amount (15,728 acres) in 2001 was placed in preferential tree growth taxation. This is a slight increase from the 15,380 acres held in tree growth in 1991. In 2001, there were 2,782 acres held in softwood, 8,023 in mixed and 4,923 in hardwood.

Mariaville Comprehensive Plan Update: Inventory and Analysis

Timber continues to be harvested in Mariaville. Table J.1 shows recent timber harvesting trends as reported to the Maine Forest Service. Between 1991 and 2002, a total of 9,442 acres were harvested. Rates vary from a peak of 2,479 acres in 1994 to 75 acres in 1998. There is thus considerable fluctuation.

Table J.1						
Timber Harvesting Trends for Mariaville, 1991-2002						
Year	Selection Harvest Acres	Shelterwood Harvest Acres	Clearcut Harvest Acres	Total Harvest Acres	Change of Land Use, Acres	Number of Timber Harvests
1991	104	0	0	104	0	3
1992	390	70	80	540	0	5
1993	1,119	14	95	1,228	0	4
1994	2,149	60	270	2,479	0	5
1995	1,182	221	50	1,453	0	10
1996	125	0	15	140	0	7
1998	25	50	0	75	0	4
1999	498	98	0	596	0	9
2000	263	137	5	405	4	10
2001	903	716	148	1,767	2	11
2002	443	182	40	655	2	5
Totals	7,191	1,548	703	9,442	8	73
Source: Maine Forest Service year-end landowner reports						

6. Threats from Growth and Development

Given the rocky and ledge nature of most blueberry land, it generally has a low likelihood of being developed. One major issue facing forestry resources in Mariaville is the sale of commercial forest land for subdivision and development. A related issue is large scale timber harvesting, which has taken place across town. In addition to the aesthetic and natural habitat impacts of clear cutting, there are threats to water quality. If not properly managed, timber harvesting anywhere in a watershed can result in erosion that can affect a lake's water quality.

7. Assessment of Current Measures to Protect Farm and Forest Land

There are no specific measures presently in place to protect farmland. Some protection is offered through the shoreland zoning ordinance to regulate timber harvesting in certain zones. These provisions apply only to a fraction of the town's land area. Land held in tree growth taxation is temporarily protected from development. There are no municipal standards to regulate timber harvesting beyond the state minimum requirements.

K. LAND USE

1. Purpose

This section discusses current and likely future land use patterns in Mariaville. An understanding of land use trends is very important in determining Mariaville's ability to absorb future growth. Specifically, this section:

- a. summarizes the breakdown of developed and undeveloped land;
- b. discusses major changes in Mariaville's land use patterns and how these might affect future land use; and
- c. identifies land areas suitable and unsuitable for the growth likely to occur over the next ten years.

2. Key Findings and Issues

Although Mariaville has grown rapidly in recent years, it is still a very rural town. Its major land use challenge may be the widely scattered nature of its development. East Mariaville, along Route 179 has been separated from the rest of the town since the damming of the Union River in the 1920s. It is difficult to provide services to the Hopkins Pond area. Another challenge is continued roadside development along Route 181.

3. Summary of the 1991 Plan

The plan mentioned that the town was predominantly rural but was beginning to grow. It stated that it was “imperative that Mariaville develop land use management strategies designed to ... protect the rural character of the town and to protect those resources which are sensitive to development.”

4. Acreage of Developed Land

The estimated acreage of developed land is shown in Table K.1. The acreage is based on a count of the total dwellings and other structures (such as commercial and public buildings) in town multiplied by average lot size of one acre. While many buildings are on larger parcels, these parcels could be subdivided in the future.

This table shows that there are 550 acres of developed land in town or about 2 percent of the total land area of 29,760 acres. The latter figure does not include the 12,211 acres of open water and 5,864 acres of bog and swamp. These data show that Mariaville remains a very rural town, in spite of its recent high rate of development.

TABLE K.1		
Estimate of Developed Land Acreage		
Land Category	Acreage	Percent
Developed	550	1.8%
Vacant, developable	18,338	61.1%
Vacant with serious constraints	10,872	36.5%
Total Land Area	29,760	100%
Source: tabulation of land use map by the HCPC		

5. Changes in Land Use Patterns

Mariaville has several distinct parts that should be recognized in developing the comprehensive plan. This section discusses the various parts of town and their implications for planning purposes. One important overall trend is that development in Mariaville is widely dispersed. For example, the Peninsula Drive area in South Mariaville is accessible from the main part of town only by driving through portions of Otis and Ellsworth. East Mariaville can be reached either by going through Amherst, Aurora and Osborn or via Ellsworth, Township 8 and Waltham. Similarly, the Hopkins Pond area can be reached only by driving through Amherst. The provision of fire protection and other services to these areas could be very costly if they continue to grow. The town is already seeing an increase in subdivision activity. Between October 1995 and March 2005, eleven subdivisions were created out of 994 acres of land.

a. Lakeside areas

There has been considerable shorefront development along portions of Graham Lake. Long popular as a place for vacation homes, there has been more year-round development in recent years. This is one of the most densely developed areas of town. There is the prospect of further development in the Hopkins Pond area due to the sale of some paper company land there.

The shorefront is the only part of town where there is presently zoning. Any future recommendations on town zoning should consider the current shoreland zones. For example, some earlier comprehensive plan proposals suggested a low density land use district for inland areas of town that would have had the effect of making the shoreland areas the primary growth areas.

b. Route 181

There has also been considerable development along Route 181. The road offers easy access to Ellsworth and provides relatively high speed travel. Continued development along this road could cause some traffic problems if access management issues are not addressed. Specifically, a large number of unregulated curb cuts (such as driveways) would increase the number of turning movements on and off the road and slow the rate of traffic. There is also some development along the Pyle Road, which connects Route 181 to Route 180 in Clifton

c. Other Roads

There has been a concentration of development in the area roughly bordered by the Trout Brook, Tinker Hill and Branch Roads and Eldridge Drive. This area is off the main road and thus has less potential access management problems than development immediately along Route 181. There is other scattered development along other roads in town such as portions of the Tourtelotte Ridge Road (Route 179 in East Mariaville).

d. Forest Land

As mentioned in the *Agricultural and Forest Resources chapter*, forestry is the predominant land use in Mariaville. It is important to distinguish between small forest holdings and those held by major forestry companies. According to the analysis by the College of the Atlantic student Hope Rowan, there were about 14,446 acres of commercial forest in Mariaville in 2002.

This is significant since this land has been kept from development. It has meant that most development has occurred in certain parts of town while other parts have been completely undeveloped. While, as mentioned above, Mariaville has had a very dispersed development pattern, this pattern could have been far more dispersed if certain large parcels have not been kept in use for forestry. A major sale of forested land could alter this historical development trend and lead to more sprawl-related problems. As mentioned in the *Agricultural and Forest Resources chapter*, there has considerable gravel mining activity in Mariaville's forested areas.

6. Areas Suitable for Growth

While Table K.1 shows that Mariaville has a large amount of vacant land. Not all of that amount is readily developable. The Natural Resources Conservation Service has rated the town's soils in terms of their suitability for low density residential development (see Table K.2 and Map 6) According to this analysis, there are 10,872 acres (35 percent of the total land

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area) with a very low potential for low density development and 11,093 acres with a low potential. There are also about 5,954 acres with a medium potential and 2,341 acres with a high potential.

These soil ratings are based on factors such as soil suitability for septic tank absorption fields, dwellings with basements and local roads and streets. The criteria reflect state-wide standards. There are few areas in the state that don't have at least some soil limitations such as wetness or bedrock near the surface.

Soils, however, should not be considered the only factor used in determining areas most suited for growth. It is also important to consider access to roads and other services, existing land uses and citizen wishes. Also, even soils less suited for growth can usually accommodate some type of lower density development.

Table K.2 Soil Potential Ratings for Low-Density Development, Mariaville		
Category	Estimated Acreage	Percent
Very Low Potential	10,872	35.3%
Low Potential	11,093	36.1%
Medium Potential	5,954	19.3
High Potential	2,341	7.6%
Not rated	461	1.5%
Total Land Area ¹	30,721	100%
¹ Note: The total acreage shown here does not equal the total shown elsewhere in this report due to differences in mapping procedures. Source: Natural Resources Conservation Service and the Maine Office of GIS		

It must be stressed that the soils information shown on the Soils Potential map is very general. It should not be used as the sole criterion in determining if a parcel is suitable for development since generalized soil surveys are considered accurate for pieces of land greater than five acres. A more detailed soil survey is generally needed to assess site-specific problems on smaller parcels.

7. Current Land Use Regulation Measures

Mariaville has a shoreland zoning ordinance that is consistent with state standards but does not exceed those guidelines (see map 8). It does not offer additional protection for water bodies that may be of high value locally, even if they do not require protection under state law. The town also has a building permit ordinance that requires that all new residential construction complies with state standards for wastewater disposal. It sets a minimum lot size of two acres for new lots outside of the shoreland zone and road frontage of 200 feet. There is also a 35 percent lot coverage requirement. These standards provide some protection for all construction.

The town has a subdivision ordinance that was most recently revised in 2003. It sets general standards for review that address scenic character, top soils and vegetation removal, erosion and sedimentation control and lot standards. This ordinance greatly facilitates the planning board's ability to review a proposed development. Overall, the standards are general and offer little specific guidance that the planning board may need in reviewing a more complex development.

Mariaville does not presently have town-wide zoning or site plan review standards. This means that the town cannot regulate where certain uses locate. It also means that it has a limited ability to review developments that are not subject to subdivision review.

8. Projected Land Acreage Needed for Development

A general estimate of the land needed for development between 2003 and 2015 can be made using the dwelling unit projections from the Housing chapter and other expected growth trends. The dwelling unit projections assume 87 additional new year-round homes by 2015. To allow for a faster than expected rate of growth and for any second homes, the plan assumes that 120 new units will be built by 2015. Assuming an average of two acres of land per unit, this would mean 240 additional acres of residential land by the year 2015 (see Table K.3). Commercial/industrial development is likely to be limited and amount to no more than 10 additional acres by 2015.

This is a liberal projection. It is more likely that the actual rate of development will be below this rate. For planning purposes, however, it is better to plan for high growth than to be left unprepared for a faster than expected growth rate.

There may also be an increase in conservation land if more properties are placed under conservation easements. This is especially likely if the town actively promotes such measures. There is no way to estimate how many acres would be protected by such easements.

These projections show that there would be about 18,000 acres of vacant, developable land by the year 2015. There is thus ample land to accommodate any anticipated development. The challenge is for the town to grow in a way that minimizes sprawl while also limiting any restrictions on how owners might choose to use their land.

Table K.3 Projected Land Use, Mariaville, 2015			
Description	Estimated 2003 Acreage	Estimated New Acreage 2003-2015	Projected Acreage 2015
Residential	545	240	785
Tax-exempt	60	0	60
Commercial/Industrial	5	10	15
Total Developed	550	250	860
Very Low Potential Soils:	10,782	---	10,782
Vacant-Other Soils:	18,338	---	18,088
Total Land Area	29,760	---	29,760
Source: Projections by the Hancock County Planning Commission			

L. FISCAL CAPACITY

1. Purpose

It is important to understand a municipality's tax base and its various fiscal challenges. A town's fiscal capacity affects its ability to pay for new services related to growth and development and growth trends in turn affect the tax base. This section will:

- a. discuss Mariaville's fiscal conditions;
- b. assess recent expenditure and revenue trends; and
- c. discuss likely future trends.

2. Key Findings and Issues

Total state valuation increased at a before-inflation rate of nearly 44 percent between 1992 and 2002 while property tax commitments increased by 65 percent. Spending was thus increasing at a faster rate than the tax base was expanding. The largest numeric increase was in educational expenditures. Given projected population growth rates for Mariaville, it is likely that expenditures will continue to grow at a faster rate than the tax base.

3. Summary of 1991 Plan

The plan noted that the main revenue source was the property tax. Total valuation had increased at a before-inflation rate of 90 percent between 1985 and 1990, but the mil rate had fallen by only 18 percent. This meant that the overall tax burden had increased.

4. Valuation and Tax Assessment

The town's ability to raise taxes depends largely on the total value of all property in town. The change in state valuation for Mariaville is shown on Table L.1. Between 1992 and 2002, the total valuation in town increased by about 42 percent. If the 1992 figure is adjusted for inflation, there was a nearly eight-percent increase.

<i>Table L.1</i> Trends in State Valuation, Mariaville 1992-2002	
Year	Amount
1992	\$20,250,000
1993	\$21,300,000
1994	\$22,400,000
1995	\$22,550,000
1996	\$22,400,000
1997	\$22,450,000
1998	\$24,300,000
1999	\$25,200,000
2000	\$26,550,000
2001	\$27,550,000
2002	\$28,850,000
Percent Increase, 1992-2002	42.5%
Percent Increase, adjusted for inflation	7.9%
SOURCE: Municipal Valuation Return Statistical Summary, Maine Revenue Services, Property Tax Division	

Valuations are best compared to tax commitments, the total amount of money raised through taxation. As seen in Table L.2, tax commitments increased at a before-inflation rate of nearly 66 percent between 1992 and 2002. When adjusted for inflation, there was a nearly 26 percent increase. The tax rate, as reported on the state municipal valuation return, increased at before inflation rate of approximately 18 percent. These trends are significant since local spending is increasing at a faster rate than the tax base. It should be noted that the drop in the tax rate between 2001 and 2002 was due to a revaluation. The data shown do not reflect the change in valuation that occurred in 2003 due to the sale of previously leased lots to camp owners in the Hopkins Pond area.

<i>Table L.2</i> Trends in Tax Commitment, Mariaville, 1992-2002		
Year	Tax Commitment	Local Tax Rate
1992	\$303,921	\$19.25
1993	\$292,240	\$18.20
1994	\$323,538	\$18.90
1995	\$348,633	\$19.90
1996	\$351,955	\$19.10
1997	\$356,574	\$18.95
1998	\$399,721	\$19.50
1999	\$423,542	\$11.90
2000	\$429,994	\$19.50
2001	\$538,119	\$22.75
2002	\$503,722	\$13.80
Percent Change 1993- 2002	65.7%	18.2%
Percent Change adjusted for inflation	25.6%	-10.5%
SOURCE: Municipal Valuation Return Statistical Summary, Maine Revenue Services, Property Tax Division		

Revenue sources for 2001-2002 are shown on Table L.3. The primary source is revenue is the property tax (50.6 percent) followed by intergovernmental revenues (about 39 percent). The latter category includes state school subsidies, state highway block grants and similar state funding sources. These can vary considerably over the years. For example, state school subsidies have fluctuated in the past ten years and as of 2003-2004 were a smaller proportion of the school budget than in the mid-1990s (see Table L.3). State revenues for the municipal portion of the budget, as opposed to the school portion, are very limited.

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<i>Table L.3</i> Revenue Sources, Mariaville, 2001-2002		
Source	Amount	Percent of Total
Property Taxes	\$528,262	50.2%
Excise Taxes	\$58,853	5.6%
Intergovernmental Revenues	\$408,197	38.8%
Other income	\$56,803	5.4%
Total	\$1,052,115	100.0%
SOURCE: Town reports		

<i>Table L.4</i> State School Subsidies, Mariaville			
Year	State Subsidy Received	Total Education budget	State Percent of Total
1995-1996	\$193,397	\$435,681	44.4%
1996-1997	\$211,403	\$460,498	45.9%
1997-1998	\$269,950	\$494,368	54.6%
1998-1999	\$244,964	\$551,699	44.4%
1999-2000	\$263,032	\$618,664	42.5%
2000-2001	\$296,688	\$655,420	45.2%
2001-2002	\$311,481	\$785,742	39.6%
2002-2003	\$305,091	\$686,942	44.4%
SOURCE: Town reports, school audit			

5. Expenditure Trends

Expenditure trends on specific items between 1992-1993 and 2002-2003 are summarized in Table L.5. The highest numeric increase was in education. School trends are discussed in the Public Services and Facilities section. Administration had the highest percentage increase. It should be noted that since different town personnel compiled the town reports in different years, the data shown are not entirely comparable.

The town had no debt in 2002-2003. This means that town is in no danger of exceeding state debt limits even if it were to borrow money in the future. Per state law, a town may borrow up to 15 percent of its state valuation. Up to half of this amount is reserved for educational purposes.

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Table L.5

Summary of Expenditures

Item	Amount 1992-1993	Amount 2002-2003	Percent Change	Inflation Adjusted Change
Administration	\$28,000	\$80,788	188.5%	118.6%
Town Roads	\$10,000	\$15,000	50.0%	13.6%
Transfer Station	\$25,000	\$39,000	56.0%	18.2%
County Taxes	\$10,416	\$19,410	86.4%	41.2%
Snow Removal	\$50,000	\$59,500	19.0%	-9.8%
Education	\$201,506	\$446,403	121.5%	67.8%
General Assistance	\$991	\$1,600	61.5%	22.3%
Fire Department	\$8,500	\$11,000	29.4%	-2.0%
SOURCE: Town reports				

6. The Future

Mariaville will likely face continued increases in its property taxes as the town grows. Past trends indicate that tax spending will increase at a faster rate than the tax base.

M. INVENTORY AND ANALYSIS SUMMARY

1. Purpose

This chapter summarizes the major issues raised in each chapter of the Inventory and Analysis. The summary sets the foundation for the *Goals and Objectives* section. The first part of the summary describes the priority issues that the town faces. The second part identifies the key findings of the *Inventory and Analysis*. The wording is taken verbatim from the *Key Findings* section of each chapter. The third part discusses key regional issues, those that are most effectively addressed on a multi-town or county-wide basis.

2. Priority Issues

One major issue facing the town is high rate of year-round population growth. The town tied with the adjoining town of Otis as the fastest growing town in Hancock County between 1990 and 2000. This growth has meant a steady increase in solid waste and education costs.

The growth has also put a strain on the fire department. Since most new arrivals in town commute to jobs elsewhere, they have little time to volunteer to serve on the department. Even those willing to serve are often discouraged by the demanding training requirements.

Another issue is land development in remote parts of town. This development is often a long way from the fire station and may necessitate an increase in the already long daily school bus route. The situation could worsen if several large tracts of forested land are sold for subdivision purposes.

Mariaville is blessed with some pristine lakes and a variety of natural resources. Poorly planned development in the lake watershed areas could result in a deterioration of lake water quality and a resultant drop in waterfront property values and tax revenues. Other threats to water quality include large-scale timber harvesting and gravel mining operations.

Home-based businesses are important to the town's economy. It is important that future planning assure that the right to run a business out of one's home is protected. A related self-employment issue is assuring adequate high speed internet service. Such service is important to many professionals may want to commute electronically to their places of work.

3. Key Findings and Issues

a. Population

Mariaville had a 53 percent increase in its year-round population between 1990 and 2000. The town shares the fastest rate of growth in Hancock County with the adjoining town of Otis. During the same period, the school age population increased by 130 percent. In 2000 Mariaville had the youngest median age of any town in Hancock County except for those that hosted an institution such as a school or military base.

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b. Economy

Most Mariaville residents who work commute outside of town. The labor force increased in size by 76 percent between 1990 and 2000 compared to a 19 percent rate of increase for Hancock County. The self-employment rate in Mariaville increased from 10 percent in 1990 to 17 percent in 2000. Self-employment is an important part of the local economy.

c. Housing

The number of year-round homes in Mariaville increased by 65 percent between 1990 and 2000, which is faster than the 53 percent rate of increase for year-round population. About 98 percent of homes are single family houses or mobile homes, there are very few duplexes or multifamily units.

d. Transportation

As a small, rural community, Mariaville does not face any serious traffic issues. Over time, continued curb cuts along existing roads may result in slowing the flow of traffic. The town should expect further increases in traffic based on its projected population.

e. Municipal Services and Facilities

As a rapidly growing town, Mariaville faces a number of public facility needs. The town office building needs renovation and improvement. The fire station, which is owned by the volunteer fire department rather than the town, is completely inadequate and the fire department is short of day-time volunteers. The transfer station is facing increased operating costs.

f. Recreation

Mariaville has limited recreational resources. Its few public access points to surface water are small in size, have inadequate parking and do not provide for recreational swimming. There are few space places for walking and no formal network of snowmobile or ATV trails. Informal public access to the woods is becoming more restricted as more land is posted. Given the town's projected growth rate, these facilities are likely to be even more inadequate in the future.

g. Water Resources

Mariaville residents are dependent on private wells for their drinking water supply. No problems have been noted to date with the adequacy of ground water supply in town. Graham Lake faces water quality problems due to periodic drawdowns by the utility company that owns the dam, flow from the Union River and its phosphorus count. Hopkins Pond has very high water quality and is one of the gem lakes in Maine. It is vulnerable to declines in water quality in the future.

h. Natural Resources

Mariaville has a diversity of wildlife and other natural features. Areas of particular interest include the Mariaville Falls area, the floating islands on Graham Lake, the bald eagle nest site on Graham Lake and the bald eagle feeding and wintering areas on Hopkins Pond. There are also several deer wintering areas.

i. Historical and Archaeological Resources

There are no state-registered historic or archaeological sites in Mariaville. There are several local buildings of historical interest. Presently, the town has no measures in place to protect these resources but they don't face any immediate threat.

j. Agricultural and Forest Resources

Forestry is the predominant land use in town. The main farming activity is blueberry raising. Potential sale and subdivision of large tracts of commercial forest land is a concern. Other concerns are gravel mining in forested areas and the environmental impacts of large scale timber harvesting.

k. Land Use

Although Mariaville has grown rapidly in recent years, it is still a very rural town. Its major land use challenge may be the widely scattered nature of its development. East Mariaville, along Route 179 has been separated from the rest of the town since the damming of the Union River in the 1920s. It is difficult to provide services to the Hopkins Pond area. Another challenge is continued roadside development along Route 181.

l. Fiscal Capacity

Total state valuation increased at a before-inflation rate of nearly 44 percent between 1992 and 2002 while property tax commitments increased by 65 percent. Spending was thus increasing at a faster rate than the tax base was expanding. The largest numeric increase was in educational expenditures. Given projected population growth rates for Mariaville, it is likely that expenditures will continue to grow at a faster rate than the tax base.

m. Key Regional Issues

Mariaville faces several regional issues. For example, any job creation efforts would be best addressed on a regional level. A related issue is assuring adequate internet access for homes and businesses. Similarly, the town could participate in regional transportation endeavors aimed at managing traffic congestion in the Ellsworth-MDI area. The town could also explore greater regional sharing of certain town services. Perhaps the most immediate regional issue is lake watershed protection. Since development anywhere in a lake watershed may affect lake water quality, it is important to approach this issue with other towns that share the same watershed.

SECTION TWO

GOALS, OBJECTIVES, IMPLEMENTATION STRATEGIES and FUTURE LAND USE PLAN

II.A. GOALS and OBJECTIVES

1. Purpose

This section presents goals and objectives for the town of Mariaville. Goals are general statements for the town's future and are followed by more specific objectives. As will be seen, these goals and objectives are often interrelated. The goals and objectives are followed by implementation strategies that explain how each goal will be achieved. While this plan contains some highly specific recommendations, residents are reminded that planning is an on-going process. To assure flexibility in the event of unforeseen circumstances, periodic updating of these goals is necessary.

2. Overall Goal

Mariaville aims to remain a rural town with ample open space, clean lakes and large areas of forests. It wishes to accommodate new growth in an orderly manner and be a welcoming place for persons of all ages. It aims to have minimal intrusion on private property rights while also protecting those natural and man-made resources that contribute to the town's high quality of life.

3. Goals and Objectives

A. POPULATION GOAL

Mariaville wishes to promote orderly population growth and remain a community with a year-round and seasonal population composed of all age groups while avoiding excessive growth that may place an undue strain on municipal services. The plan recommends that these aims be accomplished by the following steps:

1. Undertaking measures to promote a balanced, regional economy (see *Economy* goals) so that people of working age have access to jobs;
2. Undertaking measures to plan for the gradual expansion of municipal services; and
3. Implementing land use controls that allow the planning board to review the full impacts of development and manage its negative impacts.

Implementation Strategy: These are addressed through other goals and objectives in the plan.
Responsibility: As indicated elsewhere in the plan.
Time Frame: As indicated elsewhere in the plan.

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B. ECONOMY GOAL

As a small community, Mariaville is largely dependent on the region for the jobs needed by its residents. It thus aims to promote measures that promote a healthy regional economy. In addition it aims to assure that there are local sources of jobs through the following measures:

1. Regional Coordination: The plan recommends that Mariaville participate in regional efforts to diversify the regional economy. This will include on-going involvement with the Coastal Acadia Development Corporation (CADC) or its successor organization and, the Eastern Maine Development Corporation as well as supporting endeavors of other state and regional organizations that promote this goal;

Implementation Strategy: The select board contacts CADC leadership (as well as other groups), asks to be informed when there are meetings or other events to discuss the regional economy and appoints a representative to attend the meetings.
--

Responsibility: Select board

Deadline: 2005

2. Natural resource-based employment. The plan supports measures to sustain and expand employment opportunities in natural resource-based jobs. Specific measures to address farm and forest-related jobs are addressed under *Agriculture and Forest Goals*.

Implementation Strategy: These are addressed elsewhere in the plan

3. Allowing small-scale home occupations: The plan recommends any land use ordinances assure that small-scale home-based business occupations are allowed in all zones unless specifically prohibited by state shoreland zoning requirements.

Implementation Strategy: This is addressed through the Future Land Use Plan and the recommended land use ordinances.

C. HOUSING GOAL

Mariaville aims to retain its diversity of housing stock and opportunities for persons of all income levels to live in the town. The goal is to have ten percent of new housing affordable to households earning 80 percent or less of the county-median income. Since the town already has a housing stock far more affordable than Hancock County as a whole, relatively few steps are needed. The plan recommends the following measures:

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1. Improvement of existing housing stock: The town will seek grant funds from the Community Development Block Grant program and other funding sources to rehabilitate the homes of interested home owners who meet the program income guidelines. The focus will be on meeting basic life and safety needs such as complete plumbing, heating systems, wiring and kitchen facilities;

Implementation Strategy: The select board appoints an ad-hoc housing committee to work with groups such as the Washington Hancock Community Agency, the Maine Office of Community Development, the Hancock County Planning Commission and USDA Rural Development to determine what grants are most suited to the town.

Responsibility: Ad-hoc housing committee

Time Frame: 2005-2007

2. Land use ordinance standards: Assure that any town-wide land use standards accomplish the following:

- a. Allow accessory (sometimes called in-law) apartment units in all districts where allowed by state law without an increase in density requirements over those required for single family homes;
- b. Allow duplex and multifamily units in designated growth areas (see *Future Land Use Plan*). Units will be required to provide adequate off-street parking, meet state life and safety codes and be buffered from surrounding properties; and
- c. Set standards for mobile home parks that are consistent with state law but still require landscaping and similar measures to assure a quality environment for tenants and buffers from surrounding properties. Mobile home parks will be allowed only in areas where there is prompt and easy access to emergency services. (see *Future Land Use Plan*)

Implementation Strategy: This will be addressed in the development of the land use ordinance

Responsibility: Planning board

Time Frame: 2005-2007

D. TRANSPORTATION GOAL

Mariaville aims to have a transportation system that promotes the cost-effective, safe and efficient movement of people, goods and services within and through the town. The plan recommends that this be accomplished through the following specific measures:

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1. Access management: The plan recommends that the town enact driveway access standards to manage the number of curb cuts along its roads (see also *Land Use Goals*);

Implementation Strategy: This is addressed under the land use goals.

2. Bicycle facilities: The plan supports the provision of safe bicycle shoulders along state highways serving Mariaville.

Implementation Strategy: The select board contacts the Maine Department of Transportation and asks that include provisions for bicycle shoulders in any improvement plans for state highways (see D.3 below).
--

Responsibility: Select board

Timeframe: 2005

3. State Highway Improvements: The plan supports measures to upgrade the state highway system serving Mariaville through the following measures:
 - a. urging the Maine Department of Transportation to reconstruct the Mariaville segments of Route 181. Concurrent with these improvements, take measures to address the safety hazards at the Route 181-Dority Road, the Route 181-Goodwin's Bridge area and Route 181-Pyles Road intersections; and
 - b. supporting regional efforts to address critical transportation bottlenecks that affect Mariaville residents including, but not limited to, the Route 179/180-Route 1-A and the State Street-Oak Street intersections and measures such as a bypass in Ellsworth.

Implementation Strategy: The select board contacts the Maine Department of Transportation and asks that these improvements be made a priority. It also articulates its priorities by responding to various surveys sent to municipal officials by the MDOT.
--

Responsibility: Select board

Timeframe: 2005

4. Town Road Policy: In the interests of managing road costs and minimizing sprawl, the town supports the following measures as part of its road policy:
 - a. prohibiting the acceptance of any roads as town ways in areas designated as rural in the Future Land Use Plan;
 - b. allowing the acceptance of subdivision roads as town ways in areas designated as growth in the Future Land Use Plan. All accepted roads require town meeting approval and must be built to town standards;

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- c. continuing to require that any subdivision road in a designated rural area be connected to a road that is built and maintained year-round to town standards including snow plowing.

Implementation Strategy: These standards are incorporated into the town's land use ordinances. 4.c is already included in the town's subdivision ordinance.
--

Responsibility: Planning board

Timeframe: 2005-2007

5. Regional Congestion management: The plan supports efforts to manage congestion on a regional level through efforts such as, but not limited to, park and ride lots, expanded Island Explorer bus service and van pools that serve Hancock County.

Implementation Strategy: The select board sends letters of support for any relevant regional grant opportunities.
--

Responsibility: Select board

Timeframe: on-going

E. PUBLIC FACILITIES AND SERVICES GOAL

Mariaville aims to provide its residents and tax payers with quality public services and facilities in a manner that respects the limitations of its tax base. Whenever proven cost-effective and equitable to all parties involved, it encourages the sharing of services with adjacent communities.

Specific measures include:

1. Police Protection: The comprehensive plan supports the retention current police protection services for Mariaville by the State Police and the County Sheriff.

Implementation Strategy: no further action is needed

2. Education: The comprehensive plan supports providing Mariaville children with a quality education in an adequate facility that meets state standards.

Implementation Strategy: This shall be accomplished by continuing support for the school budget in the town meeting process.

3. Public Works: The plan supports retaining current winter and summer road maintenance arrangements and expanding these arrangements if necessary and allowed by town budget constraints;

Implementation Strategy: no further action is necessary
--

- 4 **Fire Protection and Emergency Response:** The plan supports the provision of adequate fire protection and emergency response services in order to improve the department's ISO rating through the following specific steps to assist the volunteer fire and rescue department:
- a. supporting the replacement of the current fire station building with a new facility that meets all health and safety standards and provides adequate space for vehicle and equipment storage and maintenance, training and meeting areas and office space as well as building a branch station in Otis;
 - b. working with state and federal officials to find ways to make training requirements for fire and rescue department members more practical;
 - c. supporting and, where practical, enhancing mutual aid arrangements;
 - d. including in the town's capital investment plan adequate funding for needed fire and rescue department equipment, vehicle and boat acquisition;
 - e. assuring that there are an adequate number of dry hydrants and cisterns throughout the town particularly in areas where water supply is a problem; and
 - f. amending the subdivision ordinance to require that all new and expanded subdivisions have fire fighting water supply arrangements that meet the fire department's standards.

Implementation Strategy: 4.a & 4.c: the necessary expenditures are placed in the capital investment plan. The fire department will depend primarily on fund raising, donations and grants to fund its needs; 4.b the fire department raises this issue at state and regional fire fighters association meetings; 4.d & e: the fire department recommends to the select board that funding of these items be placed in the town meeting warrant; 4.f: this will be accomplished through revisions to the subdivision ordinance
--

Responsibility: fire and rescue department except 4.f, which will be the responsibility of the planning board.

Time Frame: 4.a: 2007; 4.b: on-going; 4.c: on-going; 4.d: on-going; 4.e: 2005-2007

5. **Municipal Office Building:** Mariaville supports the upgrading of the town office building to address heating, plumbing and space needs. The plan recommends that funds be set aside in the capital investment plan for the eventual replacement of the town office with a larger structure.

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Implementation Strategy: The select board recommends establishment of a town building replacement reserve fund in the capital investment plan. As of 2004, the town had created a committee to examine the needs of both the town office and the fire and rescue department. The committee may recommend a joint facility.

Responsibility: Select board

Time Frame: on-going until sufficient funds are accumulated.

6. Solid Waste and Recycling: Mariaville aims to have an efficient and environmentally sound solid waste system and the town promotes recycling whenever it is proven cost-effective. The plan supports the following specific measures:
 - a. continue the upgrading of the transfer station site;
 - b. continue participation in regional household hazardous waste and universal waste collections; and
 - c. continue to undertake periodic reviews of recycling efforts and explore measures to increase recycling.

Implementation Strategy: 6.a: the select board recommends inclusion of the appropriate amount of funds in the capital investment plan. The 2004 town meeting raised funds to be used for designing facility improvements; 6.b: the town raises the necessary funds when regional collections are undertaken; and 6.c: the transfer station committee contacts the Hancock County Planning Commission and asks it to evaluate current recycling practices and help the town develop new measures.

Responsibility: 6.a: select board; 6.b: select board recommends; and 6.c: transfer station committee

Time Frame: 6.a: yearly until funds are raised; 6.b: at the time collections are undertaken; and 6.c: 2005.

F. RECREATION GOAL

Mariaville wishes to provide its residents with a range of outdoor recreation opportunities that recognize the limitations of municipal budget through the following specific measures:

1. Public access to surface water: The plan recommends that it be town policy to improve public access to surface water for recreational uses. Specifically, the plan promotes:
 - a. development of a town swimming area with adequate parking and a boat launching ramp;

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- b. the preservation of the existing public access points in town;
- c. To the extent permitted by state law, restrict the use of high-speed watercraft on Hopkins and Oran Ponds; and
- d. working with the Hopkins Pond Mariaville Homeowners Association to assure continued public access to Hopkins Pond.

Implementation Strategy: 1.a: The select board appoints a committee to explore options and recommend a site. Funds for this purpose are included in the capital investment plan; 1.b: the town assures that these sites are adequately maintained; 1.c: the select board and the Hopkins Pond Mariaville Homeowners Association meet to discuss the sort of ordinance that is needed. The select board then submits the ordinance for town meeting vote. If state law allows, the select board also recommends passage of restrictions on high-speed, personal watercraft. The two groups also meet to discuss how best to maintain access to this site.

Responsibility: 1.a: select board and committee; 1.b: select board as part of annual budget process; and 1.c & d: Select board and Hopkins Pond Mariaville Homeowners Association

Time Frame: 1.a: 2006-2008; 1.b: on-going; and 1.c: 2005

2. Public access to the woods: The plan supports measures to retain and expand public access to the woods for hunting, fishing and hiking. This shall be accomplished through the following measures:
- a. assuring that any town-sponsored efforts to acquire conservation easements on properties retain the right of public access for these purposes; and
 - b. seeking matching grant funds for the development of a trail system for non-motorized traffic in presently undeveloped areas.

Implementation Strategy: 2.a: this will be accomplished as part of land conservation efforts (see Natural and Scenic Resource Goals); and 2.b: the town sets aside matching funds in its Capital Reserve Fund and seeks the appropriate state grants.

Responsibility: 2.a: planning board; 2.b: select board

Time Frame: 2.a: (See Natural and Scenic Resource Goals); and 2.b: 2005-2010.

3. Snowmobile and ATV trails: The plan supports the development of a snowmobile/ATV trail system in Mariaville. This shall be accomplished by working with regional snowmobile organizations in determining the best strategy to resurrect former trails.

Implementation Strategy: The select board contacts area snow mobile/ATV clubs to determine interest in resurrecting trails. The board also sponsors any grants for snow mobile/ATV trails.

Responsibility: Select board and local snow mobile/ATV clubs

Time Frame: 2006-2007

G. WATER RESOURCES GOAL

Mariaville desires to maintain, and where needed, restore the quality of its ground and surface water resources through the following specific policies:

1. Ground Water Protection. Since there are no public water systems in Mariaville, it is important to protect ground water resources. The plan recommends the enactment of an aquifer protection overlay district for the town's mapped aquifers. Standards for this district would:
 - a. prohibit commercial and industrial uses that threaten water quality. These include gasoline stations, dry cleaning establishments and other operations that involve the use or storage of hazardous chemicals and substances. These restrictions shall **not** apply to occasional domestic operations such as home maintenance and repair;
 - b. for residential uses, require a minimum density of two acres per unit in an aquifer protection overlay district; and
 - c. establish a maximum impervious surface ratio (all pavement, structures, driveways and parking areas) of 25 percent.

Implementation Strategy: This will be addressed through the land use ordinance revisions

Responsibility: Planning board

Time Frame: 2005 – 2007

2. Non-Point Source Management and Stormwater Runoff: Assuring that all town regulations make adequate provisions to manage non-point pollution, stormwater runoff, drainage, erosion and sedimentation. Such provisions could include, but are not limited to, minimizing storm water runoff, assuring adequate drainage and buffering, and setting standards for the handling of deleterious matter and hazardous materials at commercial and industrial operations;

Implementation Strategy: This will be addressed through changes to town land use regulations.
--

Responsibility: planning board

Time Frame: 2005-2007 for land use ordinances
--

3. Invasive Species: The plan recommends that the town undertake the following measures to manage invasive aquatic species:

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- a. post signs at current and future public landings informing boaters of the risks of transporting species from one lake to another;
- b. place informational brochures that warn about invasive species at the town office tax collector's counter;
- c. monitor the latest information on invasive species from regional and state group and prepare to undertake further steps if specific problems are anticipated;
- d. work with local lake associations in managing invasive species.

Implementation Strategy: 3.a select board contacts groups such as the Congress of Lake Associations and the Union River Watershed Coalition to see if sample signs are available and places at the public landings; 3.b: the select board obtains copies of existing brochures available from sources such as the DEP-Lakes Division; 3.c: the select board contacts the Hopkins Pond Mariaville Homeowners Association and asks it to monitor the situation; 3.d the select board contacts all lake associations.

Responsibility: select board and pond/lake associations

Time Frame: 2005-2007

- 4. Phosphorus Control: The plan supports strong measures to manage phosphorus loading into the town's great ponds. This shall be accomplished primarily by enacting standards in the land use ordinance for all watersheds that are consistent with or exceed DEP-recommended guidelines on matters including, but not limited to, vegetative cutting and buffering, driveway design and drainage. The level of protection for Hopkins Pond and Oran Pond will be high and for Graham Lake will be medium. The plan also encourages local lake associations to continue with lake lay water quality monitoring efforts.

Implementation Strategy: This will be accomplished through changes to the town's land use ordinances. To assure coordination with other towns in the lake watersheds, it is recommended that the planning board meet with all lake associations as well the planning boards in other towns that share watersheds with Mariaville to discuss setting common standards for lake watershed protection.

Responsibility: planning board

Time Frame: 2004-2006

- 5. Floodplain management: The plan recommends that the town retain its current floodplain management ordinance and update its provisions when recommended by the State Planning Office floodplain management staff.

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Implementation Strategy: The planning board contacts the Hancock County Planning Commission and asks its staff to contact the State Planning Office floodplain management staff to determine what changes may be needed to the town's floodplain ordinance.
--

Responsibility: planning board

Time Frame: on-going

6. Lake Water levels: Due to the problems posed by major changes in lake levels, it is recommended that the town work with the appropriate state agencies and the dam owners to determine what steps can be taken to manage water levels.

Implementation Strategy: The select board contacts the Maine Emergency Management Agency and the owners of the dam to learn what are the relevant state laws and assess what options the town has to address these problems.

Responsibility: Select board or its designee

Time Frame: 2005-2006

7. Gravel extraction management: In view of its threats to ground water quality, the plan recommends that the town enact a gravel and mineral extraction ordinance to regulate how these resources are extracted. The standards in this ordinance shall:

- a. assure that use of chemicals and substances that threaten ground water quality are regulated to minimize the chance of any spills;
- b. require vegetative buffer strips between the mining operations and adjoining residential properties;
- c. establish noise, dust and related standards to regulate off-site impacts of any operation;
- d. assure that the site restoration plan is adequate to protect environmental quality;
- e. restrict non-emergency blasting and other loud operations to daytime and weekday hours; and
- f. manage off-site traffic impacts to minimize damage to public roads.

Implementation Strategy: This will be addressed through the land use ordinance changes undertaken by the planning board.

Responsibility: planning board

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Time Frame: 2005- 2007

8. Hopkins Pond Protection: Given its status as one of Maine’s “gem lakes,” the plan supports measures to manage development in the entire 521-acre watershed through the following measures:
- a. Amend the town’s shoreland zoning ordinance to rezone the area around the lake as Resource Protection. Specific new standards, if enacted, would include a 300-foot shore frontage requirement, a two-acre minimum lot size, a 250-foot structure setback, prohibition of gravel extraction and provisions regulating width of paths to the shore and vegetative clearing;
 - b. institute very low density lot sizes (10 acres per unit) for those areas of the watershed not subject to shoreland zoning; and
 - c. institute land management measures for the watershed that regulate all earth disturbance activities (such as timber harvesting and site clearance) to reduce the likelihood of any stormwater runoff adversely affecting lake water quality. It is recommend that these standards include vegetative planting and buffering, ditching, culvert and detention pond requirements.

Implementation Strategy: This will be addressed through the land use ordinance changes undertaken by the planning board.

Responsibility: planning board

Time Frame: 2005- 2007

9. Oran Pond Watershed: In view of environmental fragility of Oran Pond, the plan recommends that the land management measures recommended for Hopkins Pond also apply to the Oran Pond watershed.

Implementation Strategy: This will be addressed through the land use ordinance changes undertaken by the planning board.

Responsibility: planning board

Time Frame: 2005- 2007

10. Union River Watershed: The plan supports cooperative efforts to manage the Union River Watershed through groups such as the Union River Watershed Coalition.

Implementation Strategy: This is a continuation of current policy that involves residents and officials attending periodic meetings of this group and sharing the results with townspeople.
--

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11. Wetlands Protection: The plan recommends that the town continue its current wetlands protection measures.

Implementation Strategy: The town retains its current ordinance revisions.

H. HISTORIC & ARCHAEOLOGICAL RESOURCES GOALS

In recognition of their importance to the town's historic character, Mariaville aims to protect and enhance its historic and archaeological resources. The plan recommends that this be accomplished through support of the following measures:

1. encouraging the town to work with interested property owners to have their properties voluntarily placed on the National Register of Historic Places. The plan recommends that priority be given to having the Mariaville Falls site registered;

Implementation Strategy: The select board contacts the Maine Historic Preservation Commission to learn how it might best proceed.
--

Responsibility: Select board

Time Frame: 2005-2007

2. Amending the subdivision ordinance, and drafting any other land use ordinances, to require that applications for development projects, other than single or two-family dwellings identify major known, mapped historical and pre-historical features in their application material. If any portion of a site has been identified as containing historic or archaeological resources, the development application must include appropriate measures for protecting these resources. These measures will include, but not be limited to changes in layout and design, building footprints, restricting the extent of excavation and the timing of construction.-

Implementation Strategy: This will be addressed through the land use ordinance changes undertaken by the planning board.

Responsibility: planning board

Time Frame: 2005- 2007

I. NATURAL & SCENIC RESOURCES GOAL

In recognition of their importance to the overall quality of life and the preservation of hunting and fishing opportunities, the plan supports the protection and enhancement of Mariaville's natural and scenic resources. The plan recommends that this be accomplished through the following specific measures:

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1. including large, unfragmented areas of natural wildlife habitat as rural in the future land use plan;

Implementation Strategy: This is addressed through the future land use plan.

2. retaining the planning board's authority to require that subdivision applicants have a natural resources and/or scenic assessment prepared. This assessment would describe in detail all key natural and scenic resources, as described in the Inventory and Analysis section of the plan, that are located on the property. The assessment would be used to decide if changes are needed to lot layouts, placement of roads, drainage arrangements and other built features in order protect key natural and scenic resources.

Implementation Strategy: This will continue to be accomplished through the current land use ordinance provisions.
--

Responsibility: Planning board

Time Frame: 2005-2007

3. working with area land trusts to have unique natural and scenic resource areas in town as a priority target for the acquisition of voluntary conservation easements from interested landowners. Priority shall be given to acquiring easements in the watersheds of the town's great ponds and in rural areas. To assure adequate funding for this effort, the plan recommends that a land acquisition fund be established to match state, federal and non-profit funding sources. Funding shall be provided by requiring that all new residential lots created in the rural area (as recommended in the Future Land Use Plan) be subject to an open space impact fee at the time a building permit is issued. This fee shall not exceed five percent of the lot's assessed value. The fee shall not be assessed if the lot is part of a cluster development or if the applicant takes other measures to preserve a comparable amount of open space.

Implementation Strategy: The planning board arranges a meeting with area land trusts and similar organizations to develop a strategy consistent with the goals of the comprehensive plan. The open space impact fee is developed as part of the land use ordinance development process.
--

Responsibility: Planning board

Time Frame: 2005

4. Protection of significant fisheries habitat: In order to protect these habitats, the plan recommends that the currently undeveloped areas within 250 feet of Jordan, Tannery, Garland, Dumb, Little Dumb, Jellison Meadow and Jellison Pond Brooks be designated Resource Protection

Implementation Strategy: This change would be addressed as part of the land use ordinance revisions.

Responsibility: planning board

Time Frame: 2006-2008

J. AGRICULTURAL AND FOREST RESOURCES GOAL

In recognition of their importance to the area economy, as open space and the town's rural, undeveloped character, the plan supports the preservation and enhancement of Mariaville's forest and farm resources. The plan recommends that this be accomplished through the following specific measures:

1. including large tracts of farm and forest land as rural in the Future Land Use Plan by implementing a very low density (one unit per 5 acres) zone for those forested areas that are remote from town services (*see Future Land Use Plan map*);

Implementation Strategy: This will be addressed by the changes to the land use ordinances in accordance with the areas shown on the future land use plan map.

Responsibility: Planning board

Time Frame: 2005- 2007

2. Including "right to forest and farm standards" in the land use ordinance. This would exempt forest and farm activities in rural areas from certain noise and other nuisance standards provided that these exemptions are necessary for farm and forest operations.

Implementation Strategy: This would be addressed through the land use ordinance changes.

Responsibility: Planning board

Time Frame: 2004-2006

3. Assuring that farm and forested-related uses such as food stands and small-scale saw mills are permitted in areas designated as rural in the Future Land Use Plan.

Implementation Strategy: This is addressed in the Future Land Use Plan.

4. Assuring that all state timber harvesting standards are strictly enforced.

Implementation Strategy: This would involve assuring that the code enforcement officer is adequately trained and has sufficient hours necessary to do the job and that the select and planning boards remain informed of any timber harvesting issues.

Responsibility: Select and Planning boards.

Time Frame: on-going

K. LAND USE GOAL

Mariaville aims to preserve its current land use pattern of low density settlements and vast tracts of undeveloped forest land while allowing ample opportunity for future growth. The plan recommends that the town enact land use standards to implement the measures proposed in the Future Land Use Plan. It supports the following steps:

1. Access Management: In order to reduce the number of potential curb cuts along state highways and local roads, the town shall enact access management standards that encourage shared access roads whenever possible. It is recommended that all new subdivisions have a single access point onto an existing public way;

Implementation Strategy: This will involve changes to the town's land use ordinances. The access management policies will be done in coordination with the MDOT to assure that there is no conflict in the policies. Unless otherwise noted, this implementation strategy applies to all land use policies.

Responsibility: planning board

Time Frame: 2005-2007

2. Enactment of town-wide land management standards: The plan recommends that the town enact town-wide land use standards based on the proposal contained in the Future Land Use Plan. The proposed standards will:
 - a. encourage quality commercial and industrial development in designated areas of town. This development shall be compatible with the town's limited public infrastructure and rural character and be subject to performance standards that regulate nuisances such as noise, dust, glare and vibrations. Vegetative buffers will be required between commercial and industrial uses and between these uses and residential areas. Retail commercial and industrial uses would not be permitted in designated Rural Areas;
 - b. discourage development in areas that lack good road access, where it would be costly to provide emergency vehicle service and where lake water quality may be threatened;
 - c. avoid fragmentation of large tracts of forested land and wildlife habitat; and
 - d. assure that there are adequate areas for future residential growth in designated growth areas.

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3. Code Enforcement: The plan supports measures to assure that the town's code enforcement capacity expands as is necessary for the fair and equitable enforcement of all ordinances. As much as possible, the code enforcement officer's hours will be funded by permit and application fees.

L. FISCAL CAPACITY GOAL

Mariaville aims to promote fiscally sound development and policies that encourage long-term fiscal planning and the sharing of services with adjoining towns whenever proven practical.

L.1: Alternative Funding Sources

In the interests of minimizing demands on the property tax base, the plan recommends that the town undertake the following measures to develop and/or expand other funding sources:

1. continuing to seek grant funds for projects and maintaining capital reserve accounts so that matching local sources of funds may be accumulated well before the grant application deadline; and
2. charging user fees for certain town services if proven equitable for all parties involved.

Implementation Strategy: 1. This is a continuation of current policy; 2. The select board reviews current policies and determines if any additional user fees can be imposed;
Responsibility: 1&2, select board;
Time Frame: 2005-2007

L.2 Fiscal Planning

The plan recommends the following measures to promote long term fiscal planning in the hopes of mitigating the rate of future property tax increases.

1. Exploring the further sharing of services with nearby towns; and
2. Implementing a capital improvement plan (CIP) that will be revised annually. The CIP is an advisory document that summarizes planned major capital expenditures in Mariaville over a six to ten-year period. The final decision on all expenditures will remain with the voters at town meeting.

Implementation Strategy: 1. See Public Services and facilities goals; 2. The select board and the budget committee update the CIP on annual basis
Responsibility: 1. See Public Services and Facilities goals; 2. Select board and budget committee
Time Frame: on-going

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M. CAPITAL INVESTMENT PLAN

The capital investment plan (CInP) summarizes major capital expenditures that the town anticipates undertaking. Like the rest of the comprehensive plan, the CInP is advisory in nature. Final recommendations on funding each year are still made by the selectmen and budget committee and are subject to approval by town meeting vote. Capital expenses are defined as items with a useful life of at least five years that cost at least \$10,000. They are distinct from operational expenditures such as fuel, minor repairs to buildings and salaries.

Capital expenditures may be funded in several ways. One is a single appropriation from a town meeting warrant article. Another is annual contributions to a capital reserve fund. A third is borrowing through bonds or loans. A fourth is a grant, which usually require a local match. Other sources include MDOT highway funding, bonds and fund raisers.

Table II.1 SUMMARY OF ANTICIPATED CAPITAL EXPENDITURES, 2006-2012		
ITEM	COST	ANTICIPATED YEAR/METHOD OF FINANCING
Municipal building	\$175,000	2009/1
Fire and rescue department reserve fund	\$5,000 p.a.	2
Public/boat launching swimming area	\$150,000	2010/1&3
Fire Station	\$200,000	2006/3&7
Fire/rescue boat	\$70,000	2007/3&7
Transfer station improvements	70,000	2005/2
Route 181	\$125,000	2005/2&5
Tannery Brook Bridge, Dority Rd.	\$250,000	2006/1&5
Route 181, 2 nd segment	\$150,000	2007/2&5
Transfer station further improvements	\$100,000	2007-2009/1&2
Open space acquisition fund	\$5,000	Annually/1
Key: 1. Direct appropriation; 2. Existing capital reserve fund; 3. Matching state/federal grant; 4. Bond; 5. State Highway Local Road funding; 6. Bonded debt; 7. fund raising p.a. = per annum		

N. REGIONAL COORDINATION GOAL

Mariaville promotes regional coordination whenever it is of mutual benefit to all parties. These regional measures are addressed throughout these goals and objectives and are summarized below.

SUMMARY OF POLICIES REQUIRING REGIONAL COORDINATION	
Topic	Supporting Policies

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Transportation	D.3 & D.5
Fire Protection	E.4
Solid Waste	E.6
Recreation	F.3
Lake Watershed Protection	G.4
Union River Watershed	G.8

The following matrix shows how the Mariaville comprehensive plan meets the ten state growth management goals. It lists each goal and identifies where the policies that address that goal are found in the goals and objectives section of the plan.

MAINE'S GROWTH MANAGEMENT GOALS	
1. To encourage orderly growth and development in appropriate areas of each community, while protecting the State's rural character, making efficient use of public services and preventing development sprawl.	
Related Policies: A, E & K	
2. To plan for, finance and develop an efficient system of public facilities and services to accommodate anticipated growth and economic development.	
Related Policies: E	
3. To promote an economic climate that increases job opportunities and overall economic well-being.	
Related Policies: B	
4. To encourage and promote affordable, decent housing opportunities for all Maine citizens.	
Related Policies: C	
5. To protect the quality and manage the quantity of the State's water resources, including lakes, aquifers, great ponds, estuaries, rivers and coastal areas.	
Related Policies: G	
6. To protect the State's other critical natural resources, including, without limitation, wetlands, wildlife and fisheries habitat, sand dunes, shore lands, scenic vistas, and unique natural areas.	
Related Policies: G & I	
7. To protect the State's marine resources industry, ports, and harbors from incompatible development, and to promote access to the shore for commercial fishermen and the public.	
Related Policies: not applicable	

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8. To safeguard the State's agricultural and forest resources from development which threatens those resources.
Related Policies: J
9. To preserve the State's historic and archeological resources.
Related Policies: H
10. To promote and protect the availability of outdoor recreation opportunities for all Maine citizens, including access to surface waters.
Related Policies: G & F

II.B. FUTURE LAND USE PLAN

1. Introduction

This land use plan presents a vision of what Mariaville residents want their town to be in the future. It aims to achieve a balance between the wishes of residents to preserve rural character, while also allowing reasonable opportunities for future growth and minimizing infringements on property rights. Through careful planning, Mariaville can accommodate all anticipated growth while also avoiding the excessive increases in property taxes and loss of rural character that can result from poorly planned development.

Specifically, this section:

- a. estimates the amount of land needed for future growth;
- b. proposes a future development scheme for Mariaville; and
- c. recommends areas for growth, rural and other needs.

2. Land Needed for Future Development

The *Existing Land Use* section of the *Inventory and Analysis* projected that about 250 additional acres would be needed for future development by 2015. More important than the total acreage of development is where that development is likely to take place if there is no change in the town's approach to managing development. As mentioned in the *Existing Land Use* section of the *Inventory and Analysis*, the town's lakeside areas have attracted considerable development. There has also been some residential development along the various roads in town.

While both these trends will probably continue, some changes are also likely. First, as the shorefront areas near year-round roads become built-up, more development will start occurring further away from the shore or in more remote shoreland areas. This means that parts of town that are not presently considered prime for development may be developed in the future. Second, the sale and subdivision of large tracts of land may increase the likelihood of development in remote areas. Third, the Hopkins Pond watershed area may attract more residential construction.

3. Criteria for Areas for Growth, Rural and Other Needs

There are a number of factors that should be considered in determining growth, rural and other areas. The most relevant factors are presented below.

Mariaville Comprehensive Plan Update: Future Land Use Plan

a. soils

The soils data presented in the *Existing Land Use* chapter of the *Inventory and Analysis*, indicates that about 36 percent of the land in town (10,782 acres) is rated as having a very low potential for development. Concentrations of poor soils should be avoided as growth areas.

b. roads and infrastructure

A good road network is important to assure prompt emergency vehicle and school bus access. Generally speaking, areas away from good roads and/or municipal services should be designated as rural. This is particularly important when year-round vehicle access is limited due to poor seasonal road conditions. At the same time, it is important to protect well-traveled roads from excessive curb cuts. This involves implementing land use standards that promote interior access roads, shared driveways and similar measures to avoid having too many driveways on an existing road. It may also involve limiting more intense development to certain sections of major roads rather than along all segments of a road.

There is no public sewer or water system serving any part of Mariaville. This severely limits the ability of the town to accommodate development at a higher density than that normally allowed if there is an on-site septic system and well.

c. existing built-up areas

Normally, existing built-up areas such as villages should be considered as possible growth areas. Development in such areas can occur where there is already a road system and a relatively high density. While Mariaville does not have a defined village, it does have several areas where development is concentrated.

d. areas of natural resource importance and environmental fragility

As mentioned in the *Existing Land Chapter*, a large portion of recent development has taken place along the shore. The combination of shoreland zoning standards and the environmental fragility limit the future development potential of this area. At the same time, shorefront and water view property is likely to remain in high demand. The Hopkins Pond and Oran Pond areas are particularly environmentally fragile and are also very remote from town services.

There are several concentrations of natural resources in town. These are described in the *Natural Resources* and *Water Resources* chapters. While some are subject to shoreland zoning protection, areas away from the shore, such as deer wintering areas and aquifers are not protected. Similarly, there are at present no lake watershed protection measures outside of the area subject to shoreland zoning. The islands on Graham Lake are also very vulnerable.

e. conclusions

The combination of poor soils, distances from year-round roads and limited public services make it difficult for much of Mariaville to accommodate high volumes of development. This means that large areas of town need to be retained as low density rural.

4. A Future Land Use Scheme for Mariaville

a. An Overview

The following paragraphs present the future land use scheme envisioned for Mariaville. In many respects, it aims to preserve the town as it is today while also allowing adequate opportunities for future growth. It aims to keep the rural areas relatively rural, preserve presently undeveloped areas, minimize increases in school bus routes and other costly expansions of services, protect a critical lake watershed and allow other areas of town to attract currently projected rates of development.

Since planning is an on-going process, the recommendations proposed here must be reviewed every few years. If they prove overly restrictive, the town may want to recommend some changes. Similarly, the town may later find that some of the provisions are insufficient to regulate development.

While the plan recommends that Mariaville enact town-wide land use controls, all proposed standards are aimed at minimizing restrictions on the average homeowner and small business owner. Rather, it aims to minimize the adverse impacts from large-scale development and those land uses that would be incompatible with Mariaville's ability to provide services. Certain activities would be permitted in all districts unless prohibited by state standards (such as shoreland zoning standards). In the event that a recommended standard conflicts with another proposed standard, the stricter provision would apply.

Allowed uses in all districts unless specifically prohibited would include single family homes (including manufactured homes) and accessory (sometimes called in-law) dwellings. Home-based occupations would also be allowed. Traditional rural uses such as farming, cutting of trees for firewood and other small-scale uses would be allowed. Uses that support rural uses such as sawmills, greenhouses, barns and equipment storage buildings would also be permitted.

These standards do not preclude from someone building at a lower density. For example, a homeowner who wished to have a two acre lot where a minimum of 0.5 acre was allowed could do so. All standards recommended in this town are minimum rather than maximum.

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The plan does **not** recommend imposition of a building code on single family dwellings. To minimize the number of curb cuts, all new subdivisions of four or more units would be required to provide road access through an interior road serving the development rather than on an existing public way.

b. Residential Growth Area

Residential Growth areas are depicted on the Future Land Use Map. These areas would be primarily residential. Commercial and other uses would be allowed in the General Growth area described below. New single family dwellings would be allowed in the Residential Growth area on two acres of land with 200 feet of road frontage. There would be a building setback of 75 feet from the center line of existing roads. There would also be a 50-foot vegetative buffer requirement between the road and the dwelling except when more visibility is needed for safe vehicle access onto a road. For roads serving a subdivision, the setback requirement would be 40 feet. The purpose of these standards is to preserve the town's rural character and have adequate spacing between driveways so that curb cuts are minimized.

All existing lots that meet state requirements (such as the distance between a septic system and a well) would be grandfathered. There would be a 15-foot side yard set back and a 25-foot rear yard setback. The frontage and set back standards could be reduced when the lots are part of a cluster development or if the lot's shape made such setbacks impractical. In the case of clusters, the focus would be on retaining the overall density so that individual lots size may be reduced as long as the remaining land is retained as common open space.

To encourage the use of the cluster option, there would be a 20 percent density bonus for developments of ten units or more that are clusters. For example, a development of ten units as a conventional subdivision would be allowed two additional units as a cluster. Similarly, a 20-unit development would be allowed four additional units.

c. General Growth Areas

This is the part of town where the highest density development would be allowed. Mobile home parks, multi-family dwellings of up to four units per two acres and small-scale commercial and manufacturing uses would be permitted with one mile of the fire station unless the area was subject to other restrictions such as shoreland zoning, natural resource protection, or if it abutted a rural area (see the *Future Land Use Map* for the recommended boundaries). Single and two-family homes would be permitted on half-acre lots. Approval of all uses would be contingent upon having adequate water supply and meeting state wastewater disposal requirements. The rationale for restricting these uses to a small area of town is to assure prompt emergency vehicle access and to protect residential areas from other uses. These uses would also not be permitted in aquifer overlay areas (see below).

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Retail commercial and manufacturing uses would be restricted to 2,500 square feet of floor space. This restriction reflects a compromise between the need to allow these uses in town and avoiding having overly large commercial and manufacturing operations. This allows the town to avoid uses that may generate more traffic, cause stormwater runoff and related pollution problems and pose conflicts with adjoining uses. The 2,500 square foot restriction would not apply to traditional rural uses (see Section 4.a above). These uses would be subject to a 10,000 square foot limit per building. The plan recommends that the town implement vegetative buffering standards between commercial/manufacturing and adjoining uses. It also recommends that commercial/manufacturing/multifamily uses be required to provide adequate on-site parking. All roads serving development other than single and two-family homes in the district must meet town road standards even if that development is not subject to subdivision review. Current town standards require that subdivision roads meet town standards. The plan is thus proposing a stricter standard for this area.

Dimensional standards would be largely the same as in the Residential Growth areas with two exceptions. First, side and rear-yard setbacks would be double those required for single-family residential uses. Second, there would be a 150-foot road frontage for single family homes.

d. Shorefront Areas

The plan recommends several changes to shoreland zoning standards. First, given the fragility of Hopkins Pond and Oran Pond, the entire shoreland area along the ponds would be rezoned. Second, the shores of several streams would be rezoned as Resource Protection (see the Water Resource Goals and Objectives). Third, more restrictive shoreland zoning would be enacted for the rural areas (see Section 4.e below)

Fourth, the Limited Residential district around wetlands in the Rural Area would have its density changed to five acres per unit. This is the same as the surrounding area. The rationale for this change is that the current Limited Residential density of one unit per acre could serve to encourage growth adjacent to wetlands. This standard would not apply to wetlands in the growth areas. The plan also recommends that the current floodplain ordinance standards be retained and updated when the state guidelines for these ordinances change.

e. Hopkins Pond and Oran Pond Watersheds

Since development anywhere in a lake watershed may affect water quality, the plan recommends enactment of a watershed protection district for the Hopkins Pond and Oran Pond watersheds. Standards for this district would include requiring a permit for all earth disturbance activities that involved ten or more cubic yards. The permitting standards would require that sedimentation and storm water run-off that could result in increased phosphorus loading be minimized. The standards would follow DEP guidelines for managing phosphorus loading (see the Water Resource Goals and Objectives).

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In addition, there would be a minimum lot size of 10 acres per unit of new residential development. All existing lots at the time these standards were enacted would be grandfathered. Commercial uses other than home-based occupations would not be permitted. These standards would apply outside of the area subject to shoreland zoning. Within the shoreland area the standards are described under the Water Resources goal G.8.

These restrictions would have the effect of retaining this area as very low density rural. In addition to protecting water quality, they discourage development in an area where it would be very costly to extend municipal services. As mentioned in the *Inventory and Analysis*, it may take the fire department and rescue squad over an hour to reach this remote part of town.

f. Rural Areas

The primary uses allowed in these areas will be single family dwellings, accessory (sometimes called in-law) units and agriculture and forestry. Other permitted uses include operations dependent upon natural resources such as saw mills, farm stands and mineral extraction as well as home occupations. Other commercial and industrial uses would not be permitted.

For new lots, the minimum lot size, under this proposal, is five acres. There would be a 250-foot road frontage requirement unless the development were part of an open space (cluster) subdivision in which case a reduced frontage would be at the planning board's discretion. The setback from the centerline of an existing public way would be 100 feet. For roads serving a specific development, the setback requirement would be 40 feet. Unlike the Residential Growth Area, there would be no bonus for use of the cluster option. Side lot setbacks would be 25 feet and rear setbacks would be 40 feet. Here again, these standards could be waived as part of a cluster development.

All development in the rural area would be required to have an average density of five acres per unit. While individual lot sizes in a subdivision could be as small as one acre, the overall density would be five acres per lot. The land not held by the individual owner would be held as common, undivided land. These standards would mean that eight lots could be created from a 40-acre parcel. The rationale for this provision is to limit the overall density of growth in the rural area.

There would also be more restrictive shoreland zoning standards in the rural areas. No new residential structures would be permitted within 250 feet of the shore along water bodies subject to state shoreland zoning standards in the rural areas. Structures would be permitted on lots approved at the time of enactment of these standards unless otherwise prohibited by shoreland zoning or other state requirements such as septic system standards (see also the five acres per unit requirement described under section 4.d above).

f. Natural Resource Areas

The plan recommends enactment of a Natural Resource Overlay District for those natural resources outside of the shoreland zone. This district would overlay any underlying district and apply to Deer Wintering Areas and Uses would be restricted to one single family unit per two acres unless stricter standards applied in the underlying district. All earth disturbance activities greater than ten cubic yards or timber harvesting would be subject to planning board review. During the review process the planning board would consult with the Maine Department of Inland Fisheries and Wildlife to determine how to minimize disruptions to the deer wintering activities.

g. Aquifer Protection Areas

The plan also recommends that the town enact an aquifer protection overlay district. The boundaries of this district are depicted on the Future Land Use map. Its provisions are described in the Water Resources Goals and Objectives.

5. Growth and Rural Areas

The Residential Growth and General Growth areas would be recommended as the growth areas. The shoreland areas would be designated transitional. While not suitable for intensive growth, state and local standards limit the volume of development that can occur in shoreland areas. The Rural, Hopkins Pond and Oran Pond Watersheds and Natural Resource Overlay Areas would be recommended as the rural areas.

6. Measures to Distinguish Growth and Rural Areas

The overall goal is to have 70 percent of new residential growth occur in growth areas. The plan recommends several measures to limit growth in rural areas and facilitate growth in growth areas. These measures build on existing constraints to growth. The most notable constraint is the lack of year-round roads in much of the town. In addition there were 15,728 acres held in tree growth taxation in 2001. This classification offers at least temporary protection from development.

The significant differences in density requirements between growth and rural areas serve to discourage growth in rural areas. The current subdivision ordinance requirement that all subdivisions be connected to a road built to year-round standards serves as an additional discouragement of growth in rural areas. Also, higher density uses such as mobile home parks, commercial uses and multi-family (three or more units) dwellings are allowed only in the General Growth area. The cluster density bonus applies only to the growth area. The open space impact fee (see Natural Resources Goals and Objectives) would be assessed only on land developed in rural areas. The rural areas also have more restrictive shoreland zoning standards.

7. Summary

The true test of any plan is time. The plan thus recommends that growth trends be reviewed on a regular basis by mapping where new development takes place. Five years after adoption of the plan, the town will need to assess what percentage of total new residential units have been built in growth areas. If less than 70 percent of new development has occurred in growth areas over that time period, the plan recommends that the plan's land use policies be reviewed.